

SEPTEMBER 1986

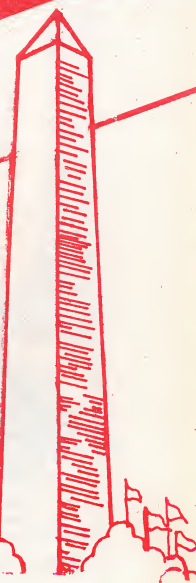
Entered
\$2.50



CURRENT NOTES

The Newsletter For ATARI Owners

WAACE



HARD DRIVES
for the ATARI ST
are finally here !

SUPRA introduces a
3.5" 20MB Drive.



THE WASHINGTON AREA ATARI COMPUTER ENTHUSIASTS

**XLent
Software**HASN'T FORGOTTEN THE 8 BIT ATARI
INTRODUCING**P.S. INTERFACE**

- Design custom Print Shop fonts & graphics with your drawing program
 - Include graphics in custom fonts
 - Convert Print Shop fonts to Typesetter icons—choose from 4 sizes
 - Move Typesetter icons to Print Shop fonts & graphics
 - Organize your Print Shop graphics—**RENAME & DELETE**
 - Convert your pictures for use in Screen Magic option
 - Works with Print Shop Companion fonts
- 48K** **\$29.95**

**XLent
Software**HASN'T FORGOTTEN THE 8 BIT ATARI
INTRODUCING**THE FIRST XLENT WORD PROCESSOR**

- Uses joystick and icon interface
- Full featured word processor
- Edit 2 documents simultaneously
- On-line help screens
- 80 column print preview option
- Combines graphics & text (Epson only)
- Double column printing (XL/XE version)
- Customize for your printer
- Use custom character sets onscreen
- Compatible with MegaFont II+
- Print spooler for Atari 130XE
- NOT Protected

48K/64K
versions**\$29.95****XLent
Software**

P.O. Box 5228
Springfield, Virginia 22150
(703) 644-8881
Telex 269728 XLNT UR

Print Shop & Print Shop Companion are trademarks
of Broderbund Software

**XLent
Software**

P.O. Box 5228
Springfield, Virginia 22150
(703) 644-8881
Telex 269728 XLNT UR

**XLent
Software**

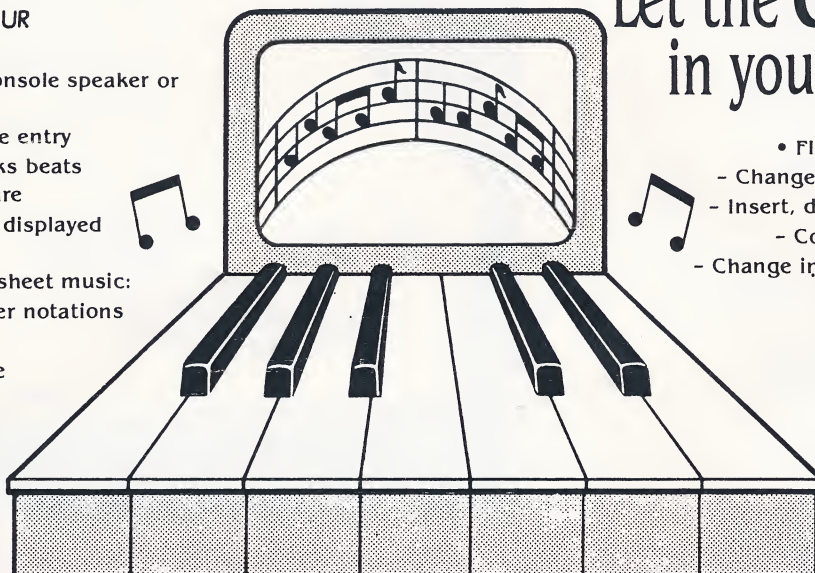
P.O. Box 5228
Springfield, Virginia 22150
(703) 644-8881
Telex 269728 XLNT UR

*Presents***ST MUSIC BOX**

copyright 1986

Let the **Composer**
in you come out.

- Compose for ST console speaker or MIDI synthesizer
- Keyboard or mouse entry
- Smart editor checks beats entered per measure
- All parameter info displayed during playback
- Print high quality sheet music:
 - Add lyrics & other notations
 - Include graphics
 - Print single voice or combination
- Conforms to MIDI standard
- Supports monochrome and color



- Flexible composing tool:
 - Change key & time signatures
 - Insert, delete & copy measures
 - Copy from voice to voice
 - Change instruments measure by measure for any voice
 - Alter tempo measure by measure
 - Control synthesizer portamento
 - Capability to transpose notes
 - Load/Save rhythms, single voice or compositions

\$49.95

By Dennis Young & Len Dorfman

Includes four compositions!

CURRENT NOTES -- Vol. 6, No. 7

TABLE OF CONTENTS

SPECIAL FEATURES

Adventures In Learning.....	Bill Moes	7
The First XLent Word Processor (XE).....	Don Elmore	18
Lister Plus & MegaFont II+(XE).....	W. Williams Schadt	32
SYNFILE+: a DBMS for your Atari (XE).....	Joe Waters	36
Homework Helper: MATH (ST).....	Bill Moes	45
Ansigraf by Grafikon, Ltd (ST).....	John Antonlades	46
Super Supradrive (ST).....	Frank F. Sommers	50
Maps and Legends (ST).....	Bill Moes	52
Softworks Basic (ST).....	Stephen Eitelman	54
Michtron's DOS SHELL (ST).....	John Barnes	58
Leaderboard (ST).....	Frank F. Sommers	60
Chessmaster 2000 (XE/ST).....	Steven Johns	62

REGULAR COLUMNS

Editorial.....	Joe Waters	4
Accent on Basic Computing.....	Ron Peters	8
Atari Resource	Milt Creighton	10
Atari Scuttlebits	Bob Kelly	6
Atari's Small Miracles (XE).....	Mark Brown	24
Battle Bytes (XE).....	M. Evan Brooks	16
Going Online (ST).....	Ed Seward	44
Kiddies & Bits.....	Susan Wolff	27
Music, MIDI, and You.....	Mike Lehr	20
New XL/XE Products (XE).....	Jack Holtzhauer	15
ST Update (ST).....	Sommers & Waters	42
Tips'N'Traps.....	Stevenson & Burke	28

WAACE CLUB INFO

A. U. R. A.....	Silver Spring, MD	63
C. P. M.....	Oxon Hill, MD	63
F. A. C. E.....	Frederick, MD	63
N. C. A. U. G.....	Washington, DC	64

NOVATARI.....	Springfield, VA	64
V.A.S.T.....	Springfield, VA	64
E.A.S.T.....	Montgomery County, MD	65
S. M. A. U. G.....	Waldorf, MD	65
W. A. C. U. G.....	Woodbridge, VA	65

ADVERTISERS

Classified Ads.....	66
Analog Computing.....	(800) 345-8112 4
Antic.....	(800) 443-0100 31,35
Applied Computer Associates.....	(301) 948-0256 13,26
Beckemeyer Development Tools.....	(415) 658-5318 43
BigFoot Systems.....	(612) 722-9515 65
Black Patch Systems.....	(800) 282-7402 56,57
Computer Service Land.....	(703) 631-4949 40
Computerfest.....	(301) 350-1437 68
Current Notes ST Library.....	49
Diskcovery.....	(703) 536-5040 5
Disk Publications, Inc.....	(214) 788-4441 9
Electronic Clinic.....	(301) 656-7983 23
Full Spectrum Computers.....	(703) 221-6220 30
Grafikon.....	(301) 937-3394 48
Haba.....	(818) 994-1899 66
InSoft Corp.....	(617) 739-9012 34
Jerry Halgwood Software.....	(408) 923-4050 53
L & Y Electronics.....	(703) 643-1729 67
Logical Design Works, Inc.....	(408) 435-1445 33
Michtron.....	(313) 334-5700 41
Regent Software.....	(818) 883-0951 55
Side-Line Computer.....	(201) 455-7844 27
Stone Age Software.....	61
TDI Software.....	(214) 340-4942 53
TEAM Software.....	(703) 533-2132 62
UNALAB.....	(206) 367-3853 22
XLent Software.....	(703) 644-8881 2

Current Notes (ISSN 8750-1937) is published monthly (excluding January and August) by the Washington Area Atari Computer Enthusiasts (WAACE), 122 N. Johnson Road, Sterling, VA 22170-9998. WAACE is a federation of Atari User Groups which provide Current Notes as part of membership in the club. Direct subscriptions to Current Notes are available for \$15/year (\$23/year foreign). Send check, payable to Current Notes, to the editor -- address below. Second-Class Postage paid at Sterling, VA. POSTMASTER: Send address changes to Editor, Current Notes, 122 N. Johnson Rd., Sterling, VA 22170.

MANAGING EDITOR: Joe Waters (703) 450-4761
 ST EDITOR: Frank Sommers (301) 656-0719
 XL/XE EDITOR: Jack Holtzhauer (703) 670-6475
 WAACE MEMBERSHIP LIST: Earl Lilley (703) 281-9017
 COLUMNISTS: M. Evan Brooks, Mark Brown, Barry Burke, Jack Holtzhauer, Mike Lehr, Bob Kelly, Ron Peters, Frank Sommers, Jim Stevenson, Joe Waters, Susan Wolff

Opinions expressed in this publication are those of the individual authors and do not necessarily represent or reflect the opinions of any of the user groups none of which are affiliated in any way with Atari Corp.

EXCHANGE SUBSCRIPTIONS are available for other Atari User Groups. Send exchange newsletters to Jack Holtzhauer, 15017 Vista Drive, Dumfries, VA 22026. Material in this newsletter may be reprinted by other Atari user groups provided Current Notes and the author are cited.

ADVERTISING RATES: single insertion: quarter page (3.5"x4.5") \$30; third page (7"x3" or 9"x2.5") \$38; half page (3.5"x9" or 7"x4.5") \$55; full page (7"x9") \$100. Half year rates (5 issues): quarter page, \$120; third page, \$152; half page, \$220; full page, \$400. Submit photo ready copy to editor by the 15th of the preceding month. Circulation in July: 2,800 (Members 1360, Store sales 1140, Exchange 115, Other 185).

BACK ISSUES (\$2/copy): A limited number of back issues are available: 1985: JUN, SEP, OCT, NOV, DEC; 1986 FEB, APR, MAY, JUN, JUL/AUG.

The EDITOR of Current Notes is Joe Waters, 122 N. Johnson Rd., Sterling, VA 22170 (703) 450-4761. Submissions of articles or advertising copy, subscription requests or back-issue orders should be sent to the editor. Deadline date for articles is the 12th and advertisements the 15th day of the preceding month.

=====

EDITORIAL

=====

Welcome back to *Current Notes*. I hope everyone enjoyed the summer. Our "vacation" was used to catch up on some much needed paperwork. And now here it is time for school again (and the beginning of the Christmas shopping season). I know I said in the last issue that we would be dropping back to 48 pages once again. I was wrong. This issue is an incredible 68 pages long! I hope everyone has time to finish reading it before the October issue comes out. We do have a record number of advertisements this month and they, in turn, allowed us to run some extra articles. Even so, I had to struggle to keep this issue down to "only" 68 pages. I had an excellent crop of articles this month and very reluctantly had to put 15 articles on hold. These will appear next month or as soon as possible.

ATARIFEST '86 is just around the corner. This second annual Atari extravaganza in Northern Virginia is sponsored jointly by the WAACE clubs and the Office of Adult and Community Education in Fairfax County. The date is set for Saturday, November 8. The location will, once more, be at the Fairfax High School. As was true last year, there will be no charge at the door nor will there be any charge to vendors who would like to display their wares. Unlike last year, we plan on having quite a bit more going on. Besides a display area for vendors and clubs, we have available many classrooms and plan to

have individual rooms dedicated to specific topics for demos and seminars (e.g. a word-processing room, a database/spreadsheet room, a telecommunications room, a game room, an education room, a music room, etc.). We are also trying to arrange some guest speakers for the Auditorium (Mr. Tramiel, who can you send us?)

Various clubs have taken responsibility for various rooms. Bill Parker (703-680-3041) of WACUG is in charge of the XL/XE rooms and Joe Kuffner (703-759-2507) of VAST is in charge of the ST rooms. If you or your club would like to sponsor a demo room or volunteer to help, give Bill or Joe a call. Palmer Pyle (703-437-3883) of NOVATARI is the contact point for vendors who would like to reserve a table or arrange to have their wares on display. More news and details next month.

The Fairfax county adult education fall schedule of computer classes is out and it offers a number of Atari specific courses: 1400 Computers for the Beginner, 5 hrs, \$14; 1403 What You Wanted to Know About Computers, 1.5 hrs, free; 1406 Computer Applications for Beginners, 5 hrs, \$12; 1410 Computers for Parents, 10 hrs, \$23; 1415 Computers for Parents II, 10 hrs, \$23; 1436 Parent/Child Computer Software, 10 hrs, \$25; 1456 Programming with Logo, 15 hrs, \$32; 1460 Programming with Basic I, 10 hrs, \$49; 1461 Programming with Basic II, 18 hrs, \$70; 1468 Pascal Programming, 24 hrs, \$63. For a complete list of courses or further information, call 703-893-1090.

Joe Kuffner

THE #1 MAGAZINE FOR ATARI® COMPUTER OWNERS

ANALOG

COMPUTING

FOR SUBSCRIPTION INFORMATION, CALL NOW — (800) 345-8112
IN PENNSYLVANIA, CALL (800) 662-2444

"My subscription... is paid up through 1985. (This) is, without doubt, the best value going for the Atari computer magazine purchaser."

Bob Kelly, *Current Notes*
ACE newsletter for Washington, DC,
Maryland and Virginia

"The range of games, tutorials, hardware and reviews provides a most comprehensive coverage, along with (the) excellent multi-language approach to software listings... You have me sold."

Chuck Rosciam

Enough said. We give you the best, and users everywhere know it. Your own subscription will enable you to start a file of information well worth having—and keeping. Shouldn't *you* subscribe now?

User-friendly reading.

7 days a week and
11 hours per day*
(*Sundays: 12-5)

GUARANTEED.

We'll have your ribbon
OR your next one FREE!



Epson
FX, MX, RX and
JX models



Panasonic
1090, 1091 & 1092



Apple
Imagewriter
C.Itoh
Prowriter



Star SG-10
Gemini 10X
Atari 1025
Okidata
80, 82, 83A, 90



Epson
LX & Homewriter



Seikosha
SP-1000



Atari
SMM 801 & 804



Atari
1027

(and more to come.)

Only Diskcovery guarantees supplies when you need them. Seven days a week, for over 70 hours per week you will find our store open with a wide selection of computer software and high quality computer supplies like the Checkmate brand of ribbons. We guarantee you to have in stock the ribbon for the listed printers. If you ever find us out of stock, the next time you buy a ribbon from us, just present your "supply check" and your next one is FREE!

That's right! 7 days a week and 11 hours per day we guarantee it!



Diskcovery



Diskcovery

Seven Corners Center-Falls Church, VA 22044

Hours: Mon-Sat 10-9, Sun 12-5

Call (703) 536-5040

Atari Scuttlebits

by Bob Kelly

The other night I had dinner with Sig Hartmann, President of Atari Software, and Richard Frick, Director of Software Development XE/ST, in Washington, D.C. Also present at the dinner were: Joe Waters, the Editor of *Current Notes*; Jack Holtzhauer, 8-bit Editor for *Current Notes*; and Ted Bell and his son, the tireless Sysops for both the 8 and 16 bit Atari bulletin boards (ARMUDIC 1 & 2).

Sig Hartmann occupied center stage throughout most of the evening/dinner which lasted over 3 hours. If you have never seen Sig Hartmann, let me point out that he speaks English with a pronounced German accent, is very colorful in both dress and mannerism, and has a fair crop of grey hair (I should know). From my viewpoint, it was a very pleasant evening as well as very informative. His answers to questions were as direct as one could expect considering it was the first time he had met us — excluding Joe Waters. Further, we knew beforehand he couldn't relay any insider information that might aid other manufacturers, such as Commodore, Apple, and the IBM clones. Simply put, Mr. Hartmann couldn't hand the competition a grenade. Yet despite these constraints, I came away with a better feeling about Atari's future.

The conversation covered a range of topics with scoops for *Current Notes* which Joe and others will report on. I would like to focus on something Sig Hartmann said to those of us in attendance representing you — the Atari user. He stated, "Tell me. What can Atari do for the users groups? How can we be of maximum assistance?" He added, stressing this point several times during the course of the evening, "Write down your ideas. By writing them down, I can pass it on to others in the corporation gaining maximum visibility and impact". I thought, "sounds good to me". However, rather than writing a private letter, I will do it in open forum. I believe maximum effectiveness is attained if all know what I have to say to Atari on their behalf. There are four points I would like to discuss — product development (R & D), direct user group support (BBS), advertising policy, and educational system support.

1. To understand the motivation of users requires a re-orientation in thinking by Atari's management. The user group member no longer relates to the slogan "Power without the Price". He is an advocate for Atari out of selfish interest — he bought the product! He is more interested in the "prestige" of the Atari Corporation and his investment. Add to this the fact that a large percentage of the new ST owners are the old 8 bit hackers and the slogan means even less. For both of these reasons, the idea of being in the forefront of personal/home computer technology is paramount.

The vast majority of active Atari enthusiasts do not look for Atari to arrange special group discounts on hardware or software nor giveaways for the best whatever. Local computer dealers can give the discounts on hardware and software while magazines can offer prizes for the best user-submitted program. Atari can supply the user with pride in the fact that his machine is among the most technologically advanced computer on the market. No doubt, this is not the case today. However, Atari has created the impression that they are working towards this goal, i.e. the 32 bit machine, 97% plus IBM emulation, CP/M (Z80) emulation, and the blitter chip to speed up the screen display rate. This pride in their investment, most of all, is important to the Atari users.

2. One of the quickest ways to promote the growth of Atari computer users is perhaps too simple. Perhaps the primary reason the 8-bit computer continues to thrive among users is because of the availability of this service. It is telecommunicating with an Atari Bulletin Board System.

Why are BBS's so popular and why should I be writing to Sig Hartmann/Atari about them? Are users only interested because of all those "free" public domain programs? Oh yes, many of those public domain programs are great, but wait a minute! What about all those people that are writing these programs, learning programming languages, and up loading those programs to the BBS? Aah, people get involved, write programs, send messages, and supply uploads because the bulletin boards give them recognition. Their effort or knowledge is "up in lights on the board".

Now, we come to the question of what can Atari do DIRECTLY for the ST user. There is a flood of new programming languages out on the market for the ST. Atari can promote the synergism that develops between the budding or experienced programmer, the casual user as well as the hacker and the bulletin board. How? Everybody knows how frustrating it is to get on a Bulletin Board system with limited storage capacity, as is the case for most Atari BBS's. Atari might follow the same route as the 2400 baud modem manufacturer, it could provide "significant" discounts on hard disk drives to Atari ST BBS systems associated with established user groups. Who knows, this may also have the desirable marketing side-affect of establishing the Atari hard disk as the standard.

3. When the ST first came out, there was a flood of favorable publicity from magazines which, for quite some time, had not printed material related to the Atari computer. This free publicity caused some owners of non-Atari computers to question me on specific merits of the machine. Time has passed, Atari has continued to improve its product; yet, the stream of questions has slowed to a trickle. Those that do inquire often wonder what happened to Atari in a general sense. In these instances, I patiently explain the current situation. Again, their interest is perked. They generally conclude their remarks by saying something like, why doesn't Atari advertise? Why don't they tell us what is going on?

It's a hell of a way to sell a new computer! I inform them Atari's constraint has been one of finances. This is less valid today.

So, Atari Corporation! You can help users by promoting the growth of the clubs through advertising where you get new users. In other words, put your dollars where they will attract first time buyers. Quite frankly, the benefits to be gained from advertising in Current Notes, Analog, Antic, etc., are limited as these readers are already "committed to the cause". Go for the uninitiated or unconvinced via other prominent computer magazines or news weeklies.

4. I save my only caustic comment to last. It applies equally to the 8 bit and 16 bit computer lines. I believe the Atari Corporation should get off its rear-end and get back into the educational market in a major way. There is no better example of Atari's failures in this market than what's happening locally. Fairfax County, Virginia, has the highest per capita income of any county in the United States. It uses Atari 8 bit computers in its school system. The administrators of the school system are beginning to feel they may be falling behind both in software and hardware terms by hanging on to Atari. Traditionally, the school system in Fairfax County cultivated many of the avid enthusiasts for the user groups. Needless to say, if the school system chooses another computer the "teenage drain" would impact the growth of NOVATARI and Atari computer sales in the Washington, D.C. metropolitan area. Right now it appears that Atari's attitude is who cares. I suggest Atari invest some money in the future by opening an Educational Division promoting both the 8 and 16 bit machines.

Nibble Bits

I haven't presented this award before but it seems the time is most appropriate. The award's title is ... MOST OUTRAGEOUS LETTER TO THE EDITOR. The letter, winning hands-down, appeared in a major PC magazine in June:

"I have a multitude of software programs and have backed them all up and keep the originals in a safe deposit box at the bank. My concern is for the originals. Is there a product on the market that will protect my originals from magnetic fields, radiation, or other possible damaging effects? I am not too concerned about fire because of the bank vault's construction."

The magazine responded with a straight face. My only personal concern is for this guys disks in the event of earthquakes.

Happy has finally released version 7.0. It is entirely a software modification, no hardware changes as originally advertised. Yes, it will back up many of the formerly uncopiable programs, e.g. MicroProse, Electronic Arts, etc. However, many of the copies can ONLY be run on a drive with Happy installed. If you don't own a Happy and with software prices dropping for 8 bit

programs, the "best buy" may be the original program and not a copier - think about the economics carefully.

I am sorry. Owing to the timely nature of the conversations with Mr. Hartmann, I delayed for one month the presentation of the remaining results of the Current Notes survey. Keeps you in suspense ..uh!

(Editor's Note: Bob Kelly is the Senior Economist for the Natural Gas Research Institute in Washington, D.C.)

ADVENTURES IN LEARNING A Newsletter Of Challenges

Reviewed by Bill Moes

Role-Playing. Games and simulations. Computers. "Adventures in Learning (AIL)," a bi-monthly newsletter, explores the possibilities and the potential of these and other non-traditional challenges toward learning. The audience: kids as well as teachers and parents and others interested in helping kids learn.

Recent articles touched on early history of the educational uses of computers, the "artificial formality in the classroom," word and number puzzles, play-by-mail games, simulations, developing characters for role-playing, books and magazines relating to the general themes of the newsletter, binary and hexadecimal numbers, and BASIC programming.

About 25% to 35% of each issue is devoted to computers directly and Atari gets quite fair, though not sole, mention. Other systems covered by AIL are the IBM PC/compatibles and the Tandy line. Editor Bob Albrecht is the author or co-author of several programming books, including the well-known Atari BASIC. Presently, he has Atari BASIC: XL Edition available.

The newsletter uses dot-matrix typestyle and a variety of line drawings for illustrations. It's not exactly glossy stuff. But it is clear, informal, and often interesting. AIL is scheduled to expand to 32 pages with the Sept./Oct. issue and go to a yearly subscription price of \$10. A mention of Current Notes in a letter to Albrecht (POB 7627, Menlo Park, CA 94026) will get a free sample. And if you're one of the first 100 CN readers to write during September, you'll have a three-issue trial.

Designed for the curious and those not too rigid to have forgotten the joyous excitement of learning, "Adventures in Learning" may help sketch that scenery for each of us to view again. Take a look.

Accent on Basic Computing

by Ron Peters

With computers as my avocation, and as part of my profession, I have run into the "light bulb" syndrome on many occasions. That's when someone, especially those that are novices at computing, see the "light" all of a sudden when trying to understand a new concept.

Learning about computers, I think, is similar to a course in statistics -- a lot more mystery than is necessary.

The purpose of this column is to take the mystery out of computers, and get across basic concepts by using analogies. We'll talk about CPU's, disk drives, files, spreadsheets, database, word processing, computer architecture, DOS, modems, etc., and all the "buzzwords" that relate to computers.

The focus of this column will not be on technical depth. You can get that anywhere -- books, magazines, seminars, and by attending NOVATARI meetings. Rather, I will use the KISS principle (Keep It Simple, Stupid), primarily because I think this approach is needed. In my job I often act as interpreter between the "high techies" and the users, so I feel quite qualified to handle this assignment.

In "heading up" the Mount Vernon Chapter of NOVATARI (by default, no one else would take the job!), and by association with computer novices (I'm trying to teach my father-in-law how to use an Atari 800XL), I've run across many instances where even people that have been around computers for some time are still shaky on some simple concepts. They hear the "buzzwords", and use them without really understanding the basics.

I'll try to light your light bulb each month with very simple analogies of how computers relate to the real world. And, at the end of each article, I'll include a glossary of the terms used in that article just to cover all the bases.

To begin, let's explore a subject that I find most of us take for granted but many (my father-in-law, for one) still fail to understand. When you load a program or file from a floppy disk (or tape) into your computer, you are not loading the original, but only a copy. The original is still safe on the disk.

Thus, for example, if you are using a word processor and load a text file for editing, the original file is still safely nestled on the disk. You are only using a copy of that file in the computer's memory.

So, go ahead, erase half the words, move paragraphs around, plug in obscenities between lines, change the

date to September 32, 2016. None of this affects the

original file, unless you "save" those changes (using the same filename) back to the same disk.

If you have written a Basic program (and, believe me, most of mine are really basic), load it into your trusty Atari and change line numbers, remove REM statements, put GOSUB's to nowhere, and then turn off your computer. When you boot-up again, and check the disk, your Basic program is still there, unaltered! How 'bout that?

The beauty of this, of course, is that you can experiment with these copies of your programs and files 'till your heart's content, without dang of ruining original. It's like (and here comes the first analogy, folks) using a Xerox copy of an original to try new designs, to change the words, color the blocks, etc., without fear of messing up the real thing.

A disk (or more properly, diskette) is a device for storing computer information -- much like an audio cassette tape, in a tape recorder, stores music or voice (or, in the case of my son, other i I have been unable to identify). Playing the tape doesn't erase the music. You have to record over it o do that. The same applies to disks (oops, diskettes).

Glossary of Terms

High-techie: people that talk in a strange, foreign language (called Buzz), and record dates backwards (e.g. 860901).

BASIC: a computer language (Beginners All-purpose Symbolic Instruction Code) that uses English words, punctuation marks, and algebraic notation to communicate with a computer (tell it what to do).

REM statement: a "remarks" statement in a computer program, which the computer ignores because it can't understand people.

Disk (diskete): like a 45-RPM record, that holds computer data. Unlike the record, however, you can play and record information using a disk.

Father-in-law: a smart person, but a long way from a "high-techie".

Computer: comes from the word "compute", and originally designed to solve complex mathematical problems at high speeds (thus, the term "number cruncher").

SUBSCRIBE NOW!

THE NEW ALADDIN

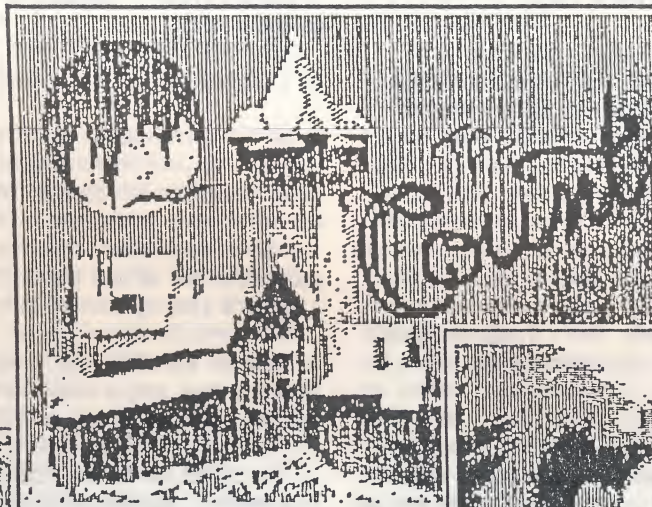
A DISK PUBLICATION FOR ATARI 8-BIT COMPUTERS

A bold, new
adventure in
ENTERTAINMENT
and
INFORMATION

A general interest
publication for
the whole family

(not a technical magazine)

FICTION
REVIEWS
GAMES
CONTESTS
MUSIC
GRAPHICS
ANIMATION
and, it's
INTERACTIVE



HARD, PLASTIC
STORAGE CASE

3 DISKETTES
RECORDED BOTH SIDES

GRAPHICS!
Like you've never
seen on an
8-bit ATARI!

The pictures in this ad
are print-outs of
actual screens
from various issues!

THE NEW
ALADDIN
SAVE \$69⁰⁰

OFF THE SINGLE ISSUE PRICE
1 YEAR (SIX ISSUES) OF MAGICAL ENTERTAINMENT
FOR ONLY \$79⁹⁵!
(SINGLE ISSUE PRICE \$24⁹⁵)

RUSH YOUR ORDER - CALL US COLLECT
(214) 788-4441

USE YOUR VISA/MASTERCARD

...COPYRIGHT © 1986 DISK PUBLICATIONS, INC....

Atari Resource

by Milt Creighton

A Visit with Chris Amori

of Applied Computers, Inc.

This is the second in series of interviews with people who represent significant Atari resource centers in the Washington, DC area. While the establishments covered are all in the local area, it is believed they will be of interest to readers across the country. The insights of knowledgeable people are always useful. In time, the scope of this column will be broadened to include software and hardware developers and others who are in a position to make significant contributions to the future of Atari computing. This month the focus is on Chris Amori of Applied Computers, Inc. (commonly known as ACA), 16220 Frederick Rd. Gaithersburg, MD.

Q: Chris, why don't we begin with you giving us a short history of Applied Computer Associates. When did you get started?

A: We were founded in the back of an optical store in 1979 by a college professor who had a lot of free time on his hands. We started as a word processing and data processing company for small business and non-profit organizations. Little-by-little the sales of the services exceeded the sales of the optical store and they closed that store and moved to our Hungerford Drive address in 1981. We stayed there until July 1984 when we moved into this location. We've been here two years now. I started with ACA in 1982 right out of college. I was hired to go out and sell accounting systems but never ended up doing much of that. Instead, I started selling Northstar computers and eventually got into Atari.

Q: Other than Atari do you sell any other computers?

A: Originally, we sold Xerox 820's, NEC PC8000's, and the complete Northstar line which includes the Northstar Advantage and Horizon. Presently in terms of the retail store, we're about 95% pure Atari. We still have a Northstar Dimension here which we use mainly for ourselves and we do get involved in selling medical systems to small practices, mostly doctors in the Washington area, but we really don't do much out of the retail store in anything but Atari.

Q: How do you like Atari products?

A: I love them; they've been good to us, so to speak. They've been the easiest to use, the best priced, and the best quality of any of the products in that price range.

Q: In regard to that, how do you, as an Atari dealer,

feel about the apparent demise of the Commodore Amiga?

A: I don't really want to see them go. I like having competition in the marketplace. I think it's healthy for the market as a whole to have two manufacturers out there advertising and generating interest in computers with the public. When you lose that competition people tend to lose interest. We certainly don't want to see them dominate the market but we don't want to see them disappear either. Competition is good, it keeps everyone on their toes.

Q: I understand you had a good month last month...

A: We had a phenomenal month last month. Our sales compared to July the previous year were up 500%. ST sales accounted for most of that; probably 70% or so of our sales were ST-related. We've been very happy with the 520ST monochrome promotion. It has been very successful for us and the month of August doesn't look like it's slowing down at all.

Q: Some of the other Atari dealers I've talked with recently have complained of slow sales the last few months. To what do you attribute your success?

A: The promotion of the 520ST monochrome package is the big reason. We came in at a very competitive price point of \$495 and we were very aggressive in our advertising. We advertised in the Washington Post business section, in Current Notes, and did a little radio advertising. That's accounted for most of the enthusiasm we've seen in sales.

Q: You mentioned that most of your recent sales have been in the ST line. Some of the other dealers have said that the 8-bit line is selling just as well as the 16-bit line. Why do you think that isn't happening in Maryland?

A: It's just been overshadowed by the ST sales. I was just looking at our figures and, to tell you the truth, the 8-bit hardware sales are up 500% also. Our ST sales are up 700% in the same period, but the 8-bit is still doing very well. Summer is a slow time for us in general. People don't spend money on computers in the summertime; they spend their money on vacations. In addition, sales of the 8-bit product tend to be very seasonally oriented. We do most of our sales in the Christmas season and on into January and February and not that much in the summer months. Overall, I'm surprised and very pleased. Although 8-bit Atari only accounted for 7% of our total sales for the month of July, it is up considerably over the previous year.

Q: Do you think there's any difference between the Virginia and the Maryland market to account for the fact that other dealers are selling a lot of 8-bit product and you're selling mostly 16-bit?

A: I don't think there's any big difference in terms of the demographics between the markets. The Montgomery County area is one of the most affluent areas in the

whole country but Virginia's got Fairfax County which is almost as wealthy. It could have something to do with that; maybe we have a little more upscale-type demographics. But I think overall a dealer is going to sell what he's comfortable with, what he feels is the best product for the customer and we're very comfortable with ST's right now. We're able to convince people the ST's are the best buy on the market and at the \$495 price point, the ST's are even a better buy than the 8-bit Atari.

Q: Speaking of the ST line, what's your opinion of the 520ST and the 1040ST?

A: I think they're very similar products. Atari has just marketed them in different ways. The 1040ST has been geared more toward small business and more of an upscale clientele whereas the 520ST, as you know, is sold through some of the mass merchants now and is really a starter-type system. But in reality they're both very similar and if you look at the price points right now, there really isn't that much pricing difference between them. The packaging is nicer on the 1040ST but it's hard to ignore the base price of the 520ST.

Q: Which one would you recommend to a first-time buyer?

A: I would say the 520ST would be very hard to pass up, especially for a first-time buyer who doesn't really understand or need the capabilities of the 1040ST. The \$200 or \$300 difference in price would be better put into a printer or additional software for the 520ST system.

Q: Does that also hold true for the 8-bit machines? Would you recommend the 16-bit machines over the 8-bit machines for a first-time buyer?

A: Basically when first-time buyers come in, we try to find out what they want to do with the system and who's going to be using it. If they're looking for a system for word processing, the 520ST monochrome system is the best buy anywhere. If they've got small children or they're primarily interested in playing arcade-type games, then the 8-bit system is probably the better way to go. We don't have a lot of arcade-type games for the ST series right now and we don't expect it to have a lot of educational software, certainly nowhere near the level available for the 8-bit line.

Q: I read recently that Atari was planning to close one of their overseas plants. Do you anticipate a decline in the availability of any Atari products as a result? Do you have difficulty getting any of the hardware now?

A: Not at all. We have several sources we deal with for most products and we also deal with Atari direct. Their delivery has been fine; we haven't had any problems at all. Typically it's about a two week time period to get products from them. We also deal with distributors who are able to go out and buy products in enormous volume. That allows us to bring things in very quickly by using them as our storeroom. As of yet we haven't seen any problems at all in getting either 520ST or 1040ST

systems. They've generally been readily available or available within a week to ten day period. As of now I'd say we have few problems. The only exception is getting the 20-meg hard disks from Atari. That's the only product that's not available. They have been released but not in enough quantities to even begin to satisfy demand.

Q: I understand that selling the 1040ST also incurs additional obligations on the part of the dealers. Could you explain that?

A: Basically, the 520ST can be sold by anyone who has a minimal knowledge of computers, but the 1040ST is another story. Atari wanted to make sure the 1040ST was supported 100%. They didn't want the product to be sold through mail order or through mass merchants because the customer would be deprived of technical support and support for software. They have forced anyone who wants to sell 1040ST hardware to become an ST service center. As you may know, in our history, we have never done service on the 8-bit or the ST products because there are excellent service centers in the area and we didn't feel we wanted to compete with them. We worked very closely with them. But in the case of the 1040ST we were forced to purchase equipment and parts kits in order to support the lot. It's very difficult and a considerable expense if you're not set up to do that already.

Q: Would you describe Atari's warranty policy as it relates to you as a dealer? For instance, if a customer has a piece of equipment go bad while it is still under warranty, who is responsible for repairing or replacing it?

A: The little card which says that Atari is giving a 90-day warranty on a product is actually backed by the dealer. In reality, Atari itself does not do any warranty service at all. The days of taking your computer to the nearest warranty station for warranty work are over. The product must come back to the dealer you purchased it from for service. We are given an allocation from Atari or from our distributors to cover any warranty work and we agree to that as a condition for becoming dealers. So it's very important in that sense to purchase a system from someplace where you know you can get service. Now if a dealer should suddenly go out of business, Atari would certainly honor the warranty direct with the factory. But, as a rule, the only place you can get warranty service done is through the dealer from whom you purchased the system.

Q: Then if the dealer is ultimately responsible for executing the warranty, where does that leave the customer who buys through mail order?

A: Tough question. You hope that nothing goes wrong with anything you purchase through mail order because you have no choice but to send it back to that mail order company and have them replace the components for you. That's something to definitely watch out for. We've had cases ourselves where we've sold something to somebody in Washington State and they've had problems. It's a very

time consuming process to ship something back and forth across the country for service, especially with the ST line where the systems are so much more complicated.

Q: In the light of that how would you describe Atari's quality control? Are you called upon to do much warranty work?

A: The failure rates, and ST's are what we're most familiar with, run less than 10% and of that 10%, we catch 90% of them here before they leave the store because we test everything before it goes out. Most of the failures are what we call DOA, or dead-on-arrival (out-of-the-box failures) and probably never leave the store. Once a product does leave the store, if it is going to have problems they will probably occur within a week after the customer gets it home and starts working with it. Beyond that first week, we've had little or no problems with either the ST or the 8-bit hardware. Atari has always had very high quality control standards and they build quality products. The problems we have had are generally associated with the overseas shipping process. Once you get by that and the machine works for the first thirty days, my guess is that you won't have a problem with it for years.

Q: What about the action in the 8-bit market? Who is buying the 8-bit machines now?

A: Most of the systems that we're selling are to people who have already invested a considerable amount of money in an 8-bit system. They may have purchased an Atari 800 back when they were \$600 or \$700 and are now upgrading to a 130XE to get the cutting edge of the 8-bit technology. In terms of new people out there, we sell very few systems to first-time computer buyers who don't have small children or don't want to use it for more than games. I would say that most of our 8-bit sales are to current 8-bit owners who are upgrading.

Q: What future do you see for the 8-bit computers in general?

A: Doesn't look real promising. I tell people that my prognosis is the 8-bit machines have about a year to a year-and-a-half left. I think by that point the Atari user will be strongly encouraged to convert to the ST line. The ST is the future of Atari and you'll see new, high-quality products coming out for that line which will force a decline for the 8-bit world. It's by no means dead completely, but you have to understand our position as a retailer. We only have a limited amount of funds we can put into inventory and, as the ST market continues to grow, we have to carry new software for that market. Something has to give. If the sales are not as consistent in the 8-bit world, that's the area that will probably have to be sacrificed. In retail terms, as long as people continue to purchase 8-bit hardware and software, and as long as there are good products to sell, we'll continue to sell them and support them.

Q: Turning to another subject for a moment, the August issue of Analog magazine stated that the sales of ST

software has not kept pace with the sales of ST hardware, broadly hinting that software piracy in the ST line may be as bad as that commonly ascribed to the 8-bit line. Have you seen evidence of a lack of software sales in proportion to hardware sales?

A: Not at all. ST software sales are definitely less than hardware sales but I don't think it's disproportionate. Until recently there just wasn't that much good quality software available for the ST line. The word processor that comes with the machine is the best one available right now, for example. But that's been changing over the last 60 days. I think there's always a lull between the time a new computer system is introduced and good software begins to appear. It's a "catch-22" situation where the software developers don't want to spend time developing good software until they are sure they can sell it and no one wants to buy hardware which isn't properly supported with software. We're very pleased with ST software sales. I will say that most people are not buying software right when they buy the machine but they do come back later and buy more.

To answer your question on piracy, I don't think there's as much problem with piracy as some people tend to believe. I feel that other product lines such as Commodore and IBM are in far worse shape than the Atari world. Most people we deal with are more than happy to pay a reasonable price for quality software. If the pricing of the software is proportional to the quality and usefulness of the product, people are willing to pay a reasonable price for it.

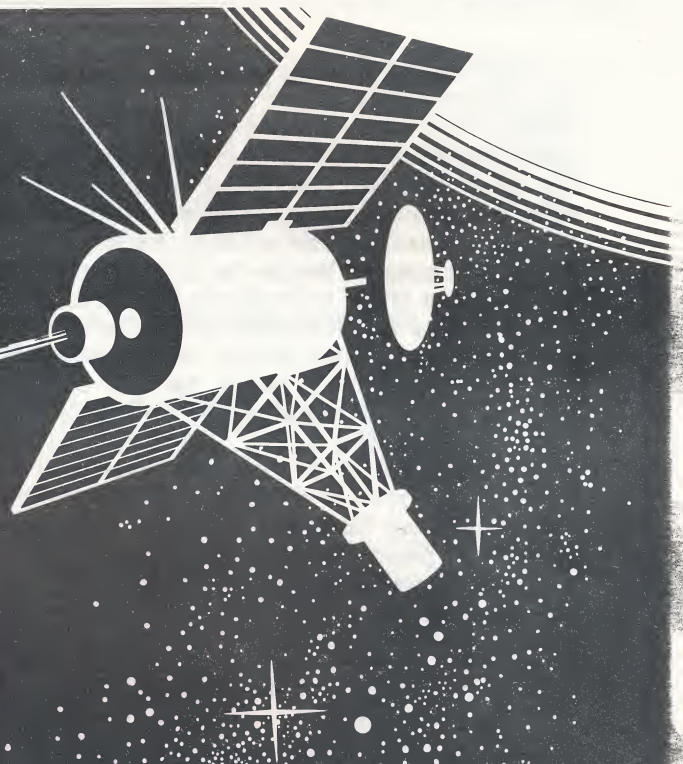
Q: I couldn't help noticing your last ad in Current Notes. It was obviously aimed at a particular competitor. Without naming names, would you describe the reasons behind that ad?

A: We have a situation in our market place, and by that I mean the entire Washington metropolitan area, where we have a competitor who we feel is totally irresponsible in terms of pricing and servicing the Atari community. We tried to come up with a way that we could let the public know that purchasing through such a company is not the best way to go. Our advertising in Current Notes relating to that has been extremely successful. You might also note that we have received letters and calls from every major retailer (of Atari products) in the Washington area cheering us on. They're happy to see somebody take a stand against this competitor. We'll continue to do that. There are quality retailers in the Washington area, people who have supported Atari for a number of years and their lifeblood comes from Atari sales. We don't want to see profit margins erode, not that we're making a lot of money to begin with. We want to keep the sales of Atari products in the Washington area with the people who can support the product properly.

Q: If, as you imply, those kind of dealers hurt the marketplace, how would you rate mass market dealers such as Toys R' Us?

THE

PRICE WARS



HAVE JUST BEGUN!

APPLIED COMPUTER ASSOCIATES, INC.
16220 Frederick Road
Gaithersburg, Maryland 20877
(301) 948-0256



A Note To Our CUSTOMERS:
(You Know Who You Are!!!)

Thank you, Thank you, Thank you!!!

What else can we say? The response we received to our last statement (July/August Current Notes) was OVERWHELMING. We have gotten calls and letters, not only from you, but from other ATARI retailers as well. We want to thank everyone for your support.

We received calls from people such as yourself that were tired of dealing with a mail-order company. Tired of the long waits to get merchandise, tired of the countless phone calls when something went wrong, but they liked the "low prices". They were thrilled when we offered them not only the "low prices" but also the convenience of "in-stock" product and 7 days a week shopping.

In appreciation of your support, we are extending our offer to beat our "Competitor's" price by \$1.00 until September 30, 1986.

Once again, thank you for your patronage and support.

Sincerely yours,

Chris A. Amori
Chris A. Amori

General Manager
Applied Computer Associates, Inc.

A: I don't see Toy R' Us as a competitor at all. In fact, our pricing is so much lower than theirs, why anyone in this area would even consider purchasing from them is beyond me. Mass merchants can perform a service that nobody else can, they can get product out into the market in large quantities. A typical example is the Atari 65XE computer. Mass merchants are very successful selling that computer because the price point is under \$100. We have little or no success selling that computer; we're far more successful selling the 130XE. In talking with our distributors, the mass merchants have been very unsuccessful in selling the 520ST computers. I think that's because people realize that particular product requires extra support. There are a lot of questions that need to be answered by a purchaser and you can't get that level of support from a mass merchant. Overall, somebody like Sears, or K-mart, or Toys R' Us won't be the people who will hurt the industry unless they go on rampant price cutting schemes and try to push product without supporting it. The real competition is the mail order people and people in the area who think price is the only thing they have to offer to the customer.

Q: We are beginning to hear rumors now about imminent hardware upgrades for both the 8-bit and ST line which weren't announced at CES. The rumors include the expected release of the blitter chip, a new sound chip, and a new graphics chip for the ST line, for example. Do you have any information about this?

A: Nothing that's substantiated. I understand the blitter chip is completed and is in testing but we have no idea when it will be incorporated in terms of a future product or as an upgrade to the current line. Atari has always historically tried to keep its computers compatible within the same line. For example, the Atari 400 and the 130XE both use the same peripherals and run the same software. We expect the 520ST and whatever computer should come out in the future to also be able to use those components. There are a lot of rumors and I think Atari has some great things to announce in the future but I don't think you'll start seeing any of them until very late this year or possibly maybe next year. As for the 10-megabyte floppy disk drive, that's something that's been possible for some time now, but the problems I've read about center around the available media. They have not found a reliable source of 10-megabyte floppy disks. That's quite a bit of information to store on one floppy. If they do overcome that problem and the price is right it'll definitely be something to look forward to.

Q: Well, in the light of your burgeoning success, do you have any future plans for ACA which you'd like to share with us?

A: We're running out of space here very rapidly. If the ST line continues to sell at the pace we expect it to, we'll have to seek new quarters by next summer. In addition, we're comfortable and happy right now being a 100% Atari store but, from a corporate point of view, that can also be a dangerous position. If something

should go wrong, we want to stay in business. So we'll hopefully add some new product line in the future. I don't know what that line will be. We might become a specialist in the 68000 marketplace, supporting a wide range of 68000-based products.

Atari's been good to us though. I can honestly say that if the ST's had not come out on the market, I believe there would be no Atari dealers in this area now and probably very few across the country. It was just the right jolt to the industry and the Atari marketplace to keep everybody alive and interested. Here at ACA, we're going to continue to expand that market and find new ways of applying the ST's not just to the home market but also into the business world as well. We're starting to see some good quality products to help the small business and even the corporate world.

* * * * *

New XL/XE Products (Continued from Page 15)

you to practice your timing and footwork with your favorite boxer. SPARRING allows you to practice what you learn in training and tune-up for the real thing. TOURNAMENT casts you as a promoter of matches between your own stable of boxers and your opponent's fighters. Total joystick control. For one or two players. Priced at \$25.99.

CHESSMASTER 2000

Electronic Arts, Software Country, 9713 Santa Monica Blvd., Suite 204, Beverly Hills, CA 90210

Said to be the definitive chess program for small computerists, CHESSMASTER 2000 "... draws from a mammoth opening library of 71,000 moves -- the world's largest. In mid-game, it displays amazing combinations of classical and modern strategy. At end game it calls further upon the world's newest and finest computer algorithm to mount virtuoso tactics. The CHESSMASTER 2000 is the perfect champion chess companion, adversary and instructor for chess enthusiasts of all ages and skills ..." Among its features are:

- . 12 different levels of play
- . on-screen chess clock
- . accepts keyboard input in all three major chess notations
- . 2D or 3D graphics presentations
- . turns the 3D board 90 degrees to see every angle
- . in "teach" mode, shows all possible moves
- . in "hint" mode, suggests a move for you
- . learn by selecting the "watch the CHESSMASTER think" mode
- . learn as the CHESSMASTER plays both sides of a game
- . study by replaying games from the "Classic Games Library"
- . Save and/or print games in progress or already played

Priced at \$35.99. [Note: see, however, Steven Johns comments elsewhere in this issue.]

New XL/XE Products

by Jack Holtzhauer

As usual, this column is devoted to new products for the 8-bit line actually available at your local retailer. We hope to have full-blown reviews of STAR RAIDERS II, ATARI PLANETARIUM, MINIATURE GOLF PLUS and FIGHT NIGHT next month.

STAR RAIDERS II

Atari Corp, Sunnyvale, CA 94086

Did any single product stimulate the sale of more Atari computers during the early 80's than the original STAR RAIDERS cartridge? Unbelievable graphics, action and playability! It was a boffo hit -- the "CHORUS LINE" of computer gaming, and is still number one on many top ten lists.

Atari has now released its long-awaited follow-up ... STAR RAIDERS II. How does this disk-based package match up with its predecessor? I dunno. I'm not a gamer myself, but reviews in other newsletters have been generally favorable, if not enthusiastic. Why not give it a try? Where else can you get a chance to wipe out the Zylon Master Force with your Pulse Lasers, Ion Cannons, and Surface Star Bursts for only \$19.99.

ATARI PLANETARIUM

Atari Corp, Sunnyvale, CA 94086

Atari shipped Novatari a demo version of this product for display during its ATARIFEST last Fall. The finished product just reached East Coast dealers within the last couple of weeks. ATARI PLANETARIUM "... shows the location of more than 1200 stars, 88 constellations, our solar system, more than 300 deep-sky objects, and Halley's comet during its 1985/86 appearance in our solar system ... includes an accelerated time clock, allowing you to observe astronomical events as they unfold -- up to 10,000 years in the future ... or backtrack ... as far as 10,000 years in the past ... make stellar and planetary maps and study eclipses and transits ... date historical events from astronomical records ... synchronize ancient calendars ... study latitude and longitude, local and Greenwich Mean Time and sunrise/sunset vs. latitude and season ... determine navigational position from celestial observations ..." Just the thing for the budding astronomer!! Priced at \$19.99. BEWARE! 1050 or density-and-a-half compatible drive required!

THE FIRST XLENT WORD PROCESSOR

Xlent Software, P.O. Box 5228, Springfield, VA 22150
703/644-8881

This new Xlent product claims to be a full featured word processor using joystick and Icon Interfaces. It allows

you to edit two documents simultaneously and features on-line help screens, 80-column print preview option, double-column printing (XL/XE only), and a print spooler for the 130XE. It is able to combine graphics and text (Epson only), allows you to customize printer drivers and is compatible with MEGAFONT II+. It's priced at \$25.99. See review elsewhere in this issue of CN.

MINIATURE GOLF PLUS

Xlent Software, P.O. Box 5228, Springfield, VA 22150,
703/644-8881

This product is an enhanced version of David N. Plotkin's Miniature Golf Construction Set originally published by ANTIC Magazine. It "... lets you design custom miniature golf courses and then pit your skill against the course ... design multiple courses to be played in a single game ... set up stationary and moving boundaries and store up to sixty holes per disk ..." Play for two to eight players. Priced at \$25.99

TOUCHDOWN FOOTBALL

Electronic Arts, Software Country, 9713 Santa Monica Blvd., Suite 204, Beverly Hills, CA 90210

Six-on-six "hard-nosed football that's easy to play ... throw from the shotgun, get open downfield and make the big catch, even fake a field goal or punt. On defense you're the roving back. Knock the receiver off his route, drop back to intercept a pass, or storm the line on a surprise blitz ... great graphics and 3-D animation bring you in the action ..." For 1 or 2 players. Priced at \$19.99.

WORLD KARATE CHAMPIONSHIP

Epyx, Inc.

"... Are you ready for black belt action? Ready for a one-on-one match that's fought with 14 different moves, from the front punch to the spinning back kick? ... pass tests of skill and endurance to advance between levels ... fight in eight international settings including Sydney, Australia, Athens, New York City and Mt. Fuji ... face tougher and tougher opponents ... exciting one or two player action." Priced at \$24.99

FIGHT NITE

Accolade Entertainment Software, 20833 Stevens Creek Blvd., Cupertino, CA 95014

Accolade, the folks who recently released the new baseball game "HARDBALL", have just followed-up with a new boxing "simulator" -- FIGHT NIGHT. Billed as a "whimsical" game by Accolade's PR rep, FIGHT NIGHT has five modules. The MAIN EVENT pits you against the four top contender's for the heavyweight crown, all of whom have different personalities, strengths and tactics, before finally meeting the champ -- the Bronx Bomber, who has "... the legs of Louis, the arms of Ali, the body of Braddock and the trunks of Frederick's of Hollywood ...". The second module, the BOXING CONSTRUCTION SET, allows you to construct your own pugilists. TRAINING allows

(Continued on page 14)

Battle Bytes

by M. Evan Brooks

U.S.A.A.F.

PUBLISHER: SSI

PRICE : \$59.95

RATING : ****1/2

"USAAF" (United States Army Air Force) is an extremely detailed simulation of the American daytime bomber offensive against Germany between 1 August 1943 and 1 August 1945. With mission planning and execution on a "daily" basis, meticulous thought is required to secure victory.

Numerous play options exist: scenarios may begin on 1 August 1943 (marked German advantage), 1 February 1944 (a close-matched battle) or on 1 November 1944 (marked American advantage). These scenarios may be played in one (1) month scenarios, or in a long campaign until the collapse of the German economy or 1 August 1945 (whichever comes first). The computer may play either, both or neither side (if the computer is playing itself, one may take over as the German during the raid execution phase).

Play mechanics are straight-forward. As the American, one must assign bomber formations (with target type and alternate) as well as escorts (close and deep), raids and airfield sweeps. The German player must react to the American raids, seeking to intercept the most dangerous ones and inflict maximum damage to the bomber streams over the Fatherland.

The American side is easier to play; once bomber missions are assigned, they are automatically executed to the best of their ability. The American player can only wait and watch nervously ("a la" "12 O'Clock High"). The German player must react promptly, determining the most efficient intercepts and transferring air assets from front to front.

The computer displays the pertinent portions of the European mainland. During housekeeping functions, one may determine missions (American) or plane production (German) and overall status of the economy (both). As the missions begin, one may watch the progress of the bombers/escorts and the actual intercepts by German Gruppen.

"USAAF" is very detailed. In order for the American to win, the German industrial machine must be negated. Certain key industries (e.g. oil, electric, steel) reverberate on other industries; thus, the American must decide on proper target prioritization, keeping in mind that the farther targets expose the bombers to more

intercepts and that escort fighters do not have the capacity to render full coverage (especially in the initial stages of the campaign).

A short scenario can be played in 3-5 hours; this covers one month. The full campaign scenario requires "at least" 250-300 hours. This reviewer played the full campaign as the German (with historical parameters). While it would have been nice to play the campaign as the American in order to gain a full appreciation of both sides, time constraints obviously do not permit this.

USAAF is not perfect. The flaws, while not material, are occasionally burdensome, e.g.:

(1) "Victory Conditions": the Americans must destroy the German economy. If they do not succeed, the game will drag on until 1 August 1945, despite overwhelming German air superiority. Historically, the daytime bomber offensive was questionable in both execution and results. If the bombers had suffered severe losses, the American Bomber Command would have been compelled to switch to night bombings (as had the British).

(2) "Airfield Status": as the German, one must determine where the Gruppen (groups) are located. But a hard copy cannot be obtained. Therefore, one must create a written index; while this is not critical, it does make playing more enjoyable and manageable.

(3) "Industry Status": again, a hard copy cannot be obtained; not critical, but frustrating.

(4) "Crashability": the disk is accessed generally more than once per mission. In the situation room review, this reviewer found an annoying tendency for the game to crash. Also, at certain times, the computer tends to steal air groups from the human player. These defects may be cured by frequent saves, but they are troublesome.

In order for the German to win, it is essential to maximize jet aircraft production, particularly the ME 262. While this aircraft can appear as late as November 1944, production maximization may cause its appearance between May-June 1944. As quickly as possible, retire obsolete aircraft and reequip with jets. While it is impossible to acquire sufficient ME 262s to revamp the entire Luftwaffe, following months will provide the rocket fighter, ME 263B, as an interim. Finally, the HE 162A, while not as good as the ME 262, is cheaper to build and by May 1945, the Luftwaffe may be totally jet-powered.

The reason jets are so critical is that they are almost invulnerable to normal Allied fighters, PLUS they do not use aviation fuel. By September 1944, American raids will have rendered aviation fuel scarce, and many piston-type aircraft will be grounded. But this does not affect jets (which utilized a much less refined distillate). Simply ignore the fighter escorts, go for the bombers and maximize the kill ratio.

In terms of tactics, these tend to change during the war (depending on aircraft availability). It is impossible to ever destroy a raid; but enough damage may well render it ineffective. Early on, use ME 410s, ME 110s and JU 88s as rocket-equipped to hit the bomber streams. Use other fighters to force a path through the fighter escorts that will minimize loss of the rocket-equipped planes. ME 109Gs and FW 190As are good as fighter intercepts. As more advanced planes appear, they should be pressed into service as quickly as possible. FW 190Fs are excellent gun/rocket platforms against the bombers, while FW 190Ds, ME 109Ks, D0335As and TA 152Hs are excellent interceptor aircraft. The TA 152Hs are the most effective, but unless the German has been very successful, they will appear too late to affect the outcome.

Interception is an art in itself. React too early or too late, and the fighters will miss. In fact, there is a chance interception will fail anyway, especially with jets and their limited range (generally, reaction should be made when the target bombers are c. 66 miles [i.e. 2 hexes] distant).

Conversion to newer aircraft will not bring immediate results. One must have patience, since usually any conversion will severely affect the experience of the pilots. One must wait until the experience and morale levels have built up in order to determine the true effects of the new plane type.

In terms of overall strategy, this reviewer grounded the Luftwaffe between March and June 1944. While this would have been politically unacceptable, in game terms, the American had assumed the offensive and was devastating German aircraft. By remaining on the ground (unless an easy target presented itself), this reviewer was able to preserve the pilots until newer and better planes were available. Historically, this period was the death of the Luftwaffe, cf. "The Encyclopedia of Military History", wherein this period is called the 'attrition of the Luftwaffe'.

Discussions with Keith Brors of SSI (and the designer responsible for the Atari version) revealed that the playtesters had never considered the "grounding" option. Furthermore, he felt that the Luftwaffe could well hold its own, given proper tactical utilization; he suggested quick conversions of JU 88s and ME 110s to ME 410s. By stationing these Gruppen in the center of Germany, they could react to raids from any direction. Mr. Brors also mentioned two aspects of the game not covered in the documentation: (1) American groups lose one plane per day automatically (e.g. downtime, weather loss, etc.); (2) the German computer is permitted to move its Gruppen every night freely (i.e. without the normal 5% morale loss).

In terms of strategic play, this reviewer recommends immediate abandonment of France. Examining target opportunities, it should be quickly apparent that basing fighters in France is a diminishing proposition. French targets are scattered and not easily supported; this

reviewer recommends buttressing the Reich and allowing Vichy to stand alone. Not overly historical, but it does work!

Also, the computer American does have an annoying tendency to batter airfields. Virtually each day the weather permits, a fighter sweep will attempt to bomb/strafe an airfield. If the sweep can catch the fighters on the ground, morale will immediately drop to 20. The best counter-tactic is to have an equivalent fighter force strictly devoted to this mission. While this reviewer converted totally to jets (mainly for the principle), it would be more efficient to retain c. 240-300 piston aircraft destined for the anti-fighter sweeps. However, the American sweeps are congregated west of Essen. If these fields are abandoned, then little damage should be incurred.

The SSI playstaff had achieved loss ratios of 3:1 (bombers:German fighters), and in fact, had several raids where American bombers incurred over 200 losses. In this reviewer's experience, the maximum damage loss was 149 American bombers (actual; the reported losses were c. 300). Loss reports may be exaggerated from 20%-50%, for both sides; this is historically accurate and adds an exciting dimension to the game. When this reviewer finished the campaign, losses were 10,912 bombers, 3993 fighters (American) and 6425 fighters (German). Damage levels had reached as high as 61, but ended at 50.

Overall, this reviewer enjoyed "USAAF" tremendously. It does not receive a 'Five Star Rating' for two reasons: (1) the flaws, while not fatal, can be annoying; (2) the sheer length of the campaign will deter all but the most indefatigable gamer (and this reviewer feels that the campaign is a much more enlightening experience than the shorter scenarios). As an additional endorsement, this reviewer plans to replay the campaign version from the American side, time permitting.

For those of you not having the time or inclination to struggle through the campaign, this reviewer has the conclusion of each month saved, thereby allowing one to pick up in mid-stream as it were. While not suggesting that these plays were optimal, they may well help a player lacking 300 hours of playtime. Availability will depend on consent of "SSI" (details in later months).

"From the Trenches" -- while the summer provided a dearth of wargames (July's omission was due to the lack of review materials), the pipeline has begun to flow again. Future reviews will include "Mech Brigade" ("Kampfgruppe" in the 1980's, "Great War -- 1914", and "Rommel -- Battles for Tobruk". Microprose is in the midst of announcing its next subject, and as this reviewer will be engaged in playtesting thereof, early details should be forthcoming.

[M. Evan Brooks, an attorney with the Federal Government, is also a Major (Infantry), USAR, having completed Command & General Staff College. He has been wargaming since 1965.]

T H E F I R S T X L E N T W O R D P R O C E S S O R*Reviewed by Don Elmore*

What does Xlent's introduction to the world of word processors do? It is far easier to describe what it does not do. It doesn't click with each key stroke, and it doesn't put the cat out at night. Other than those two functions, I am hard-pressed to find something that it can't handle with ease. The introduction in the well-organized and written instruction manual describes the word processor as powerful and enjoins the reader not to be overwhelmed by the number of features, which Xlent claims "are there so you'll never outgrow this word processor." As far as I am concerned, that is not optimistic hyperbole. It is a realistic evaluation of Xlent's package. The program operates on several levels, from a "family" type of processor designed for ease of use, right up to a "professional" type designed for writers, etc., and all on the same disk!

Upon booting the program (no need to hold down the Option button, Basic is automatically disabled), you get the main editing screen consisting of a top line for tab display, twenty lines for text writing and editing, and the bottom four lines for use as a command window. The command window gives status report messages and prompts from various functions. The command line also shows (at far right) six icons representing the most-used word processing functions; PRINT (depicted by a fancy 'P'), COPY (a camera), CUT (scissors), PASTE (paste bottle), SEARCH (a pair of glasses), and DISK UTILITIES (a floppy disk). The tab and more routine editing functions are easily accessed and clearly explained.

Xlent's default typing mode is TYPEOVER and a toggle command instantly switches to INSERT mode with the concomitant color change of the screen border. For those of us accustomed to a default insert mode, it requires paying closer attention at first to keep from writing over text. Ample commands provide for the setting/removing of tabs and the deletion of everything from a character to a word, sentence, line, paragraph or the whole document.

The icon functions are easily accessed from both keyboard and joystick. Once a particular function is selected, screen prompts efficiently walk you through the function. There is a text buffer located in a section of memory which holds one screen (800 characters) of text. The COPY and CUT/PASTE functions, which can also be activated with a joystick, use the buffer to temporarily store the text while you are working with it. The SEARCH/REPLACE functions are presented with easily followed prompts throughout the process. Naturally the replace function includes global as well as individual occurrences. The DISK UTILITY function has a couple of interesting features. When selecting the "LOAD" option, you are offered the choice of Normal (simply loads a text file into memory), Append (appends the requested file to the file already in memory), or Insert (inserts the

indicated file into a specific place in the file in memory). There is also a special "Spool" function which allows you to display any particular file on the diskette without altering the file in memory. This lets you check another text file to see how a particular phrase or term is worded, and whether or not you want to include it in your document.

The PRINT function merits a closer look. First of all, the commands are (as usual) clear and concise. In addition to the usual prompts, like printing the entire file, number of first page, etc., you are asked if you want to print to the screen, printer or a disk. The default is to the screen, and the results are both novel and impressive. Novel, because the printing to the screen is displayed by a typewriter printhead that rolls across the window, "writing" your document as you have formatted it. Words blocked right, are on the right; titles centered are in the center, etc. You can also see double column printing on the screen. Some formatted commands, however, are not displayed, e.g. underlining, italics, different type fonts, etc. It is impressive because it is all displayed in 80 columns! The text is legible (well, at least to an acceptable degree with my color monitor - I'm sure a monochrome monitor would provide entirely legible text). If you don't want to watch the printhead "write" your document, there is a toggle entry that turns it off.

XLENT has also used a slightly different approach to printer drivers. Rather than include drivers for the myriad of printers on the market, there is a special program that allows you create a driver tailored to your own printer. I am using an Epson FX-80 and was able to create a driver program that accepts underlining, emphasized, double-strike proportional, elite, condensed and italics ... all done painlessly and with a help screen of its own at the stroke of a key! While still on printing, I should mention that XLENT uses an innovative procedure for aligning the paper in the printer. With this processor, while inserting the paper, you roll it up to the point where you want the first line of print to appear. That way, you avoid the danger of the paper getting caught or slipping, and you won't have to always forfeit that first sheet when using continuous feed paper. Xlent automatically "adjusts" for this initial top margin and subsequent pages conform to either the default top/bottom inch, or whatever margin values you input.

The formatting commands also follow XLENT's overall effective approach to word processing. They vary from the normally expected commands that make up the "family" oriented type of processor, to some rather esoteric commands that are usually only found in much more professional/advanced word processor programs. The

normal format commands include left and right margins, centering, right justification, headers and footers, line spacing, page numbering, page forcing (go to next page), right alignment and automatic indentation. The advanced format features are a welcome addition to the program. If your printer requires a linefeed after each carriage return, there is a command to so instruct it. If you want to separate paragraphs with a dividing line (of asterisks or dashes), there is a formatting command that will send it to the printer. There is also a special offset directive that allows you to readjust the position of the text on the paper, without having to change any margins, and a skip text command for those times when you don't particularly want a paragraph (or number of paragraphs) printed.

There is also a pause print command which acts as a REM message; it stops the printing and you can change disks in order to access files on other data disks. XLENT also gives you a "protected space" command which would insure that two or more words are not divided between lines, so the words "XLENT Software" would never be split at the end of a line.

Those writing scientific or legal documents will appreciate the "soft hyphen" formatting feature. Usually, when a word is too long to fit at the end of a line, it is wrapped to the beginning of the next line. If you happen to be using something like the word *antidisestablishmentarianism* and if you are printing in double columns, you would normally almost be assured of a gap. With the soft hyphen feature, you type the word with three (or more) soft hyphens included, and the program scans back through the text to see which hyphen will place the word more correctly on the line, and prints it that way. Like this (I hope). Let's see if *antidisestablishmentarianism* will be hyphenated.

There are still MORE features such as a command that allows XL/XE owners to use international and special characters in the document. This feature can be added to the printer driver, or accessed at any point in your writing through the correct format command. There is a powerful mail merge feature which permits you to create a form letter and then insert data at the previously indicated blanks. A format command enables you to insert pictures (anything from normal text to printer fonts and/or bit image graphic data) into your text. This feature includes direct insertion from BGRAPH and TYPESETTER data. I should also describe the "Print Spooler" function that works with the 130XE. It allows you to output to the printer while running a different program at the same time. However, the instructions do point out that because of the architecture of the Atari computer, this "dual" operation slows down considerably, both the printing of a document and the simultaneous running of a program.

XLENT offers multiple windows in this word processor. The windows are not of the "pull-down" variety, they are full text screens. Using window #1

exclusively, you have 28,886 characters available in memory. When you use both windows, the memory is divided between them (15,107 characters in #1 and 13,778 in #2). Those numbers are about the same for the 64K XL. The CUT/PASTE text buffer is in addition to the text windows and shared between them, so you can cut, copy and paste text between documents in the two windows. While on the subject of windows, I should mention a "fourth" window that I found. Actually, it slipped by me the first few times that I booted the program. During the boot process (in the 130XE), an interim screen advises that it is setting up a RAM disk. It finally dawned on me to try and access it from the program, and it is there, waiting to be used. When you are in the DISK UTILITY function, query the DIRectory of D8 and you have another 412 free sectors to write to. When you load text into D8, you can recall it almost instantly and avoid the usual time required to load a file saved on a regular disk. Remember though, it is a virtual RAM disk and everything in it is lost when you quit the program and turn off the computer.

A simple keystroke turns the wordwrap feature on, or off, and this enables you to get a better fix on columns of numbers, or data, etc. Also there is an alignment mode which allows parts of strings to be right aligned in the current cursor position. This makes it especially easy to line up decimal points when entering a column of numbers. There is a command that highlights the spaces put on the screen as a result of the wordwrap feature. If you should accidentally place two spaces at the end of one screen line and the beginning of the next, you can immediately see it. Yet another feature is the ability to lmbd five specific points in your text, and then at the touch of a keystroke, go immediately to one of the markers. They don't even necessarily have to be in the same window, but you can't go to a point in the other window without first accessing that window.

What else? Well, you can use the joystick to literally zip through the text on the screen as well as access the icon functions. There are controls that allow you to change both the background screen color and text luminance. Another command toggles the cursor shape from a square to an underline. The program is compatible with the ATARI PROOFREADER, and this review has been checked with the PROOFREADER.

I don't think that I have overlooked any of the features of XLENT's FIRST WORD PROCESSOR. It is difficult to be entirely objective when you review a program as good as this. And, at a retail price of \$29.95, it's not going to get much better. As far as I am concerned, the cat can find its own way out at night, and as for the keystroke click I am seriously considering buying a cricket to sit alongside my monitor. Wonder if there are any Atari programs that will cue a cricket to click.....?

Music, MIDI, and You

by Mike Lehr

Understanding "MIDI" for FUN and Smart Shopping – Part I

Please Note: The column title has been changed from "The MIDI Beat" and the column has been moved from the ST section to the XE/ST section. The changes seem appropriate because non-MIDI musical topics and topics of interest to 8-bit ATARI owners will both be discussed. Hopefully this hasn't inconvenienced any of our readers, and owners of 8-bit machines who missed last month's column are especially invited to check it out.

Mike Lehr

Hello, music fans! I hope your summer has been going well. In the last issue, we discussed how the Musical Instrument Digital Interface (MIDI) opens new musical possibilities for ATARI owners, even for non-musicians: The MIDI standard includes a digital language understood by MIDI musical instruments and a set of communication rules for linking the instruments. Your computer can be a powerful tool in a MIDI studio because music can be created from MIDI commands and data.

This month we'll discuss details of the MIDI specification to assist you in selecting MIDI products wisely. Understanding MIDI jargon will help you to understand what advertised product features mean musically or how advertised capabilities make programming and playing music more convenient. However, please be warned that not every MIDI product supports all the features we discuss, and different products sometimes implement features in incompatible ways.

For example, MIDI supports a "pitch bend" command, which causes a smooth continuous pitch change, like a slide on a slide-trombone. The amount the pitch slides up or down depends on a data value transmitted with the command. Some devices don't implement pitch bend, and even two devices which do implement pitch bend may interpret the same data value to mean different amounts of bend. (The best products allow you to adjust the amount of bend that results from a given data value.)

Still, there are ways to make smart shopping easier, and you don't need to risk a lot of money to get started. You can start your computer studio quite nicely for under forty dollars. The minimum purchase would be a software program called a sequencer, which allows you to enter, edit and replay musical commands. Some sequencers will issue commands to your computer's sound chip, allowing you to add musical instruments later.

There are three major kinds of instruments likely to

be added to your studio. The most popular MIDI instruments are probably keyboard devices, such as synthesizers, pianos and organs. Pressing a MIDI keyboard transmits the same kind of digital message as a sequencer program generates when you enter note information at your computer. Most keyboard instruments also contain sound generating circuitry. Normally, the keyboard instrument's sound circuits receive and respond to the messages transmitted when its keys are pressed.

Some enthusiasts will prefer to purchase an expander module, in which the sound circuitry is sold without the keyboard. Expander modules are often much cheaper than their keyboard counterparts because the keyboard itself is often very expensive to manufacture. Expander modules can include on-board sequencers, but they are generally driven by remote control, from a master keyboard or computer.

Third, drum machines these days add a great deal of music for what they cost. They can generally be played by remote control or directly, by pressing on pads which act like keys. Also, MIDI drums often can store pre-programmed rhythm patterns for entire songs.

Regardless of what components you use, the MIDI cable over which all information passes is the glue that holds these components together as a system. Understanding how products transmit, receive and use information on this cable will tell you what the products can do and how compatible different products are.

Special means are used to sort MIDI messages, because they pass over a common cable. Although some messages are intended for all system components, other messages are intended for specific instruments. For example, the command to start playing at the tenth measure of a song would be directed to all devices, so that system components could synchronize with each other. However, the command to play a specific note or to bend its pitch would be directed to a particular instrument.

Every MIDI message begins with a pair of numbers, called a status byte, that allows MIDI equipment to properly route and interpret the rest of the message. The first number identifies the message as belonging to one of eight general categories, which are further grouped into two classes: Seven of the categories are the sort of messages directed to specific instruments, and all such messages are called channel messages. Messages in the eighth category are directed to the whole system and are therefore called system messages.

The second number in the status byte is interpreted one way for channel messages and another way for system messages. For a channel message, the second number is a whole number between 0 and 15 called the channel number. Most MIDI devices can be commanded to respond to channel messages only if the channel number matches a particular value. In a fashion resembling cable TV, messages are directed to specific instruments by "tuning" instruments to different channels and transmitting messages using the

channel number of the desired instrument.

Since system messages are directed to all components, there is no need for a channel number. The second part of a system message's status byte is used instead to identify which of thirteen kinds of system messages is being transmitted.

The MIDI specification defines four modes for communicating channel messages, and the musical capabilities of an instrument are strongly related to how it implements the different modes. Differences between modes relate to how many channels are used and to how many notes can be communicated over each channel. Table 1 summarizes how channel messages are received in each of the four modes.

Table 1. Channel Message Reception in Different MIDI Modes

	POLY ON	POLY OFF
OMNI ON	"OMNI MODE" -receive all channels -play many notes	no name -receive all channels -play one note
OMNI OFF	"POLY MODE" -receive one channel -play many notes	"MONO MODE" -receive some channels -play one note per channel

Instruments operating in the OMNI mode receive all channels and will play as many notes as the instrument is capable of. The OMNI mode is a very convenient, error-proof way of slaving an instrument to a computer or master keyboard without worrying about changing channels on the slave.

In the POLY mode, an instrument will play as many notes as it can, but only if the notes are transmitted on a specific channel. This allows more selective control of an instrument than the OMNI mode allows.

Instruments in the MONO mode play one note for each active channel, and instruments which can play multitimbrally use the MONO mode to do so. A different sound texture is assigned to each channel, thus allowing the timbre of each note to be carefully controlled. With three channels, for example, one note might be made to sound like a trumpet, the second like a trombone, and the third like a tuba.

Notice that the polyphonic and multitimbral capabilities of an instrument are limited by how that instrument implements the different MIDI modes. For whatever reasons, MIDI instruments are set up to assign

the same sound texture to different voices (notes) on the same channel, and to assign only one voice per channel in the MONO mode. The ability of an instrument to play chords therefore depends on how many voices it can assign to incoming notes in the POLY and OMNI modes, and the ability to play multitimbral chords depends on the number of different channels available in the MONO mode.

The choice of communication mode affects transmission in much the same way as reception. In the OMNI and POLY modes, several notes will be transmitted over a single channel. In the MONO mode, one note is transmitted over each available channel. Incidentally, the "no name" mode seems to be an obsolete carry-over from the recent past, when monophonic synthesizers were common.

CHANNEL MESSAGES

Instruments operating in identical modes can still have very different musical capabilities, depending on how messages are processed after they are received. Consequently, understanding some details about different MIDI messages can be invaluable in determining what a given piece of equipment can do for you. Different ways of handling channel messages probably have the greatest impact on keyboards and expander modules, but the treatment of system messages is also important, especially for sequencer programs and drum machines.

We will finish this month's article with a discussion of channel messages only. Next month, we will talk about system messages and will also focus on what to look for in sequencer software. That discussion should be much more useful after we better understand how MIDI instruments respond musically to different channel messages.

The most common kind of channel message is the note on command. A note on command always includes two data items. The first item identifies which note is to be played. MIDI allows a range of 128 notes, compared to 88 on a piano, but devices will generally transmit only some part of the MIDI range and receive some other (possibly different) part of the range.

The second data item of note on command is called the key velocity. Key velocity normally controls how loudly the note is played, corresponding to the concept of how quickly a key is struck on a piano. However, many MIDI instruments do not implement key velocity and instead play all notes with equal volume.

The note on command does not specify note duration, and a note is generally ended by sending a note off message. This message identifies the note being turned off and also specifies a release velocity. Instruments which respond to release velocity can "taper" the ends of notes in very expressive ways.

Some instruments will also respond to a channel message known either as polyphonic key pressure or as

aftertouch. The names derive from the fact that keyboard instruments determine aftertouch by how hard the key is being pressed after a note has been struck. Polyphonic key pressure messages identify a note and a value for the "aftertouch". Instruments which implement aftertouch often allow the user to decide how many effects (vibrato, volume, pitch bend, etc.) the aftertouch will control.

Channel pressure is a less expensive form of aftertouch in which the same amount of aftertouch is applied to every note on the channel. Consequently, channel pressure messages only convey the aftertouch value but do not indicate a specific note. You should be sure you know which kind of aftertouch is available on a particular piece of equipment, since channel pressure is not as expressive as polyphonic key pressure.

Instruments normally offer many musical effects and many ways of controlling them besides aftertouch and velocity. Wheels, joy sticks, pedals and switches are commonly used controllers. Effects must frequently be heard to be appreciated, but commonly used terms include modulation, portamento, sustain, vibrato, etc.

Control change messages allow the various controllers to communicate with sound circuitry. These messages include two numbers, and a given pair of numbers identifies the controller involved and the control value being transmitted. However, two devices may interpret the same pair of numbers differently, as in the earlier pitch bend example. Thus, you should consider both the range of control an instrument provides as well as how flexibly the instrument can interpret control information. (Incidentally, pitch bend messages also control musical effects, but these messages have been established as a distinct channel message category.)

Channel mode messages are an important subgroup of control change messages and are usually discussed separately in MIDI literature. Some channel mode messages specify the communication mode a device is to use. Since many devices cannot operate in all modes, you should find out what a device does when it receives a communication mode message it cannot honor.

There is also a channel mode message, called "local control", which is used to make or break the connection between a keyboard's sound circuits and the keyboard itself. Being able to turn off the local control can be invaluable. For example, you may want to play your keyboard's sound circuits from computer memory while you play into an expander module and record your playing in memory. However, your playing will use up the keyboard's available voices unless local control is turned off.

Program changes are the last category of channel messages. MIDI instruments generally store several computer programs, each of which produces different sounds in response to the same input. (Musicians often call these programs "patches".) Multitimbral instruments achieve different sound textures by assigning different programs to different channels.

The MIDI specification allows for 128 program numbers, but many instruments can not store that many programs. You should find out how many program numbers an instrument can store and what it does with program numbers outside its range.

CONCLUSION

Don't despair if shopping for MIDI products looks complex. In addition to talking about system messages and sequencer software, next month's article will describe a standard form known as the MIDI implementation chart which greatly simplifies MIDI shopping. And of course, after the smart shopping is when the fun begins.

Take care. See you next month.

MOVING?

Be sure to send in Change of
Address Notice! Send to
**CURRENT NOTES, 122 N.
Johnson Rd., Sterling, VA 22170**

INTERNAL BATTERY POWERED CLOCK FOR ATARI ST

TIME-SAVER™

\$49.95

- Installs in 15 Minutes
- No Soldering Required
- Does Not Use I/O Ports
- Uses Rechargeable Batteries
- Comes with Step-by-Step Installation Instructions
- Recommended for Frequent Users

UNALAB

11721 Roosevelt Way N.E.
Seattle, WA 98125
Orders and Info. (206) 367-3853

DEALER INQUIRIES WELCOMED

WA Residents Add 7.9% Sales Tax

THE ELECTRONIC CLINIC

4916 Del Ray Ave.
Bethesda, MD 20814
301-656-7983

Hours: M-F 9:30-6:00 Sat. 9:00-3:00 Open 'til 8:00 on Thursdays

Microper! 201 2400 ct. Paper\$ 25.00
5 1/4" DS/DD Disks ea.\$.75
10 5 1/4" DS/DD Disks w/ Library Case\$ 8.95
100 5 1/4" DS/DD Disks w/ Library Cases\$ 82.50
Library Case (Holds 10 disks)\$ 1.50
Data Case 5-1/4 (Holds 60 disks)\$ 9.50
Data Case 5-1/4 (Holds 60 disks two-tone color)\$ 10.50
Data Case (as above w/ 50 Disks)\$ 47.50

Anarray Media Mate 3 (Holds 30 3.5" disks)\$ 13.50
DX-100B Disk Cases (Holds 100 5-1/4" disks)\$ 19.95
3.5" DS/DD Micro-Floppy Disks ea.\$ 2.50
(Lifetime Guarantee) 10 for\$ 21.00
50 for\$ 97.50
100 for\$ 190.00
1000 for\$ 1750.00
Disk Care Kit\$ 9.50

Easy Holder DX-08\$ 2.75
Labels form-feed 1-wide 5000 ct\$ 14.00
2-wide 10000 ct\$ 27.00
3-wide 15000 ct\$ 40.50
4-wide 20000 ct\$ 52.00
Switchboxes A-B (Female RS232 Outlets)\$ 49.50
Switchboxes A-D (Female RS232 Outlets)\$ 79.50
Gender Changers (RS232) F-F, M-M\$ 10.00
Printer Cable 25pin-Cent (IBM type)\$ 17.50
Cent.-Cent\$ 17.50
Serial (RS232) Cable M-M, M-F, F-F 6 feet\$ 19.50
Power Tree 6-Outlet Box w/ Surge Protector\$ 24.50

Uniq Four 1200HC Modem (Hayes Compatible w/speaker!) ..\$ 169.50
TIABI XT Computer (640K, 2 Drives, IBM Compatible) ...\$ 895.00
AT-Style Replacement Keyboard\$ 125.00

Acorn RGB Monitor\$ 350.00
Cub RGB Monitor\$ 395.00
Samsung Composite Monochrome Green\$ 84.50
Monochrome Amber\$ 94.50
Color\$ 150.00

Panasonic KX-P1080 80 cps D.M. Printer\$ 239.99
Panasonic KX-P1092 180 cps D.M. Printer\$ 349.99
Panasonic KX-P1592 180 cps Wide Carriage D.M. Printer ..\$ 499.99
Panasonic KX-P1595 240 cps Wide Carriage D.M. Printer ..\$ 699.99
Panasonic KX-P3131 17 cps L.Q. Printer\$ 299.99
Panasonic KX-P3151 22 cps Wide Carriage L.Q. Printer ..\$ 499.99
Ribbons for the Panasonic Dot Matrix printers\$ 8.95

IBM PUBLIC DOMAIN SOFTWARE 454 different disks.
1000's of programs ea. \$ 3.00
Copy II PC Software (Backup your important programs!) ..\$ 39.50
Copy II PC Board w/software\$ 99.50
PC Tools Utility Software\$ 39.50

AUTHORIZED ATARI SALES AND SERVICE

ATARI 1040 ST ... IN STOCK (Color) 130 XE ... IN STOCK
ATARI 520 ST ... IN STOCK (Mono) 1050 XE ... IN STOCK

ST upgrade from 512K to 1M ... \$ 160.00 512K to 2.5M \$1200.00
Internal Battery Clock/Calendar\$ 49.95
105 Rows in stock as well as 130 XE Keyboards.

Abacus ST Books IN STOCK Various Prices
Software for the Atari ST In Stock! Prices Vary

V.I.P. Professional, A-Calc, dBMan, 4 x Forth, Personal Pascal,
Thunder, D.E.G.A.S., CAD-3D, Rouge, Leader Board, Winter Games,
The Animator, Time Bandits, The Pawn, J-Disk, Cornerman, Cards,
MichTron Utilities, ST-Term, Logikhron Clock Card, Flash,
PrintMaster, Art Gallery I, ST Copy, Copy II ST, Sundog,
Brattacus, Soft Spool, Rubber Stamp, Major Motion, A-Copier.

We also have the entire Current Notes P.D. ST Library available
as well as other Public Domain disks for sale. \$4.00 ea.

THE ELECTRONIC CLINIC

"We give you something that other dealers cannot."

Good products at a fair price with a service department
to stand behind the products that we sell.

After Sale support, Extended warranty on the ST's

FACTORY SERVICE ON ALL ATARI COMPUTER PRODUCTS

Servicing electronics at this location for 18 years

Weekly Specials

Convenient location for Maryland, D.C. and Northern Virginia

We will ship any product anywhere in the United States

Special pricing for schools and groups

"POWER WITHOUT THE PRICE! THE ATARI ST COMPUTERS!"
Prices subject to change. Limited quantities on some items.

Atari's Small Miracles

by Mark Brown

READER SUBMISSIONS

Some people have the persistence, patience, and determination to write incredibly long programs that are complex and comprehensive. But these people are rare and you can probably count all the people you personally know like that on no hands. For the other part of the population there is this column, dedicated to the hard core ambivalents who want to get a working program in less time than it took to build Rome. Atari's Small Miracles; the column for the rest of us.

This month I've been deluged with mail. Let's put that in perspective; three letters, which almost doubled all previous correspondence. But industry considers that each letter it receives expresses the opinion of a thousand people, so that means I've already got twice the number of people subscribing to this magazine liking my column. Thanks for all your support!

Before I get on to this month's topic, I'd like to make a correction to last month's column. To understand how the fault got printed, here is a short essay on what happens to my columns to get in this magazine. First I write and debug all the programs on my 800XL, then I write the column to accompany them on AtariWriter. To get them to the magazine, I upload them to the editor's BBS, which is up just for this magazine. This BBS, as I understand it, is run on an ST. So before I can upload anything, I have to eliminate all control and inverse characters in all my programs and columns (that is why I have such a love for CHR\$ in my programs). After being uploaded to the ST, the column and its programs (which are all separate files) are formatted for a QMS laser printer and printed out. All told, this column goes through three completely different systems before it is printed, so it's nobody's fault if a character is dropped every once in a while. All I can do is apologize and print the correction. Anyway, in line 80 of last month's GRTEXT, insert the capital letter "A" before the "+16" in the graphics statement. It should now work just fine.

I've decided to dedicate an entire column to programs people have sent in; all the programs you see this month were written by readers of this column. Actually the choice was made rather easy by George Humfeld of Reston, Virginia. He send me FOUR programs along with complete explanations, enough to make an entire column! So I'll just turn over most of the column to Mr. Humfeld!

"When you use the SAVE command, your program is stored in a "tokenized" form which is impossible to read directly. On the other hand, if you use the LIST command

Instead, the contents of the file you LISTed to "looks" just like what you see on the screen when you list the program. In fact, the file can be read by another BASIC program as string data, each numbered line being a separate statement. For example, try the following program:

```
10 DIM A$(120)
20 LIST "D:TRYFILE"
30 OPEN #1,4,0,"D:TRYFILE"
40 FOR I=10 TO 90 STEP 10
50 INPUT #1;A$
60 PRINT A$
70 NEXT I
80 CLOSE #1
90 XIO 33,#1,0,0,"D:TRYFILE"
```

"If you type LIST, you will see the above listing on your screen. If you type RUN, you will see the same thing on your screen, but your disk drive will run and it will take longer to happen. The reason is that the program LISTS itself into a file called "TRYFILE" on your disk and then reads the contents of "TRYFILE" back and prints them to the screen. If you change the upper limit on the FOR loop in line 40 to the number 70 rather than 90, the last two lines will not display when you RUN. Why? Because you only read the first 7 lines from TRYFILE. You get the same result if you replace line 20 with:

```
20 LIST "D:TRYFILE",10,70
```

But this time the reason is that "TRYFILE" contains only lines 10 through 70.

"Of course, a program which will display itself on the screen has rather limited utility. However, the structure of a file formed by LISTING a program permits some useful utilities.

COMPARE

"The first program will compare two program LISTINGS. I've found this particularly useful when trying to determine what changes I made last week when I updated that program I've been working on. To prepare to use the program, load in one version and LIST it to the disk under the name "D:FILE1". Load in the other version and list it as "D:FILE2". Finally, load in the COMPARE program and RUN. The program will read both files and (in line number order) display each line found on one file but not the other, display both version of lines which are not exactly the same, and tell you when it has reached the end of one (or both) files. Note that once it reaches the end of one file, the program quits. It does not display any remaining lines on the other file. It lets you know that FILE1 is "longer" than FILE2, for example, by telling you that it has reached the end of FILE2 but not the end of FILE1.

"A word of caution: COMPARE will only actually compare two lines if the line number is the same. So if you try to renumber the lines from one version to the other,

the results of running COMPARE could be less than pleasant.

```
=====
10 DIM A$(120),B$(120),C$(1),F(2):OPEN
#1,4,0,"D:FILE1":OPEN #2,4,0,"D:FILE2"
:F(1)=1:F(2)=1
20 IF F(1)=1 THEN GOSUB 100
30 IF F(2)=1 THEN GOSUB 200
40 IF K1<K2 THEN F(2)=1:?: "EXTRA ON
FILE2":?: B$:INPUT C$:GOTO 30
50 IF K2>K1 THEN F(1)=1:?: "EXTRA ON
FILE1":?: A$:INPUT C$:GOTO 20
60 F(1)=1:F(2)=1:IF A$=B$ THEN 20
70 ? :? "FROM FILE1":? A$:? "FROM FIL
E2":? B$:INPUT C$:GOTO 20
100 J=1:F(1)=9:TRAP 300:INPUT #1;A$:K1
=VAL(A$):TRAP 40000:RETURN
200 J=2:F(2)=0:TRAP 300:INPUT #2;B$:K2
=VAL(B$):TRAP 40000:RETURN
300 ? :? "END OF FILE";J:J=3-J:IF F(J)
=1 THEN GOSUB J*100
=====
```

COMPARE

"I've used up my 10-line limit on the version of COMPARE listed above. But with just six more lines and the addition of "GOSUB 230:" to the beginning of line 70, COMPARE will use the inverse video to highlight the differences between compare lines. Those six lines make up the first two-part program Atari's Small Miracles has ever had.

```
=====
230 MAX=LEN(A$):IF MAX>LEN(B$) THEN MA
X=LEN(B$)
240 FOR J=1 TO MAX:IF A$(J,J)=B$(J,J)
THEN 280
250 X=ASC(A$(J))+128:IF X>255 THEN X=X
-256
260 A$(J,J)=CHR$(X):X=ASC(B$(J))+128:I
F X>255 THEN X=X-256
270 B$(J,J)=CHR$(X)
280 NEXT J:RETURN
=====
```

SEARCH

"In the May Issue we had a utility VARXREF which would search a program for all lines containing a given variable. With SEARCH you are not restricted to a variable name. SEARCH will look through the program LISTed in the file "TTT" and display all lines containing any given character string. It will use inverse video to highlight every occurrence of the string. For example, you could specify "GOSUB" as the search string to find all subroutine calls, or a line number to find all branches to that line.

"Unlike COMPARE, SEARCH can be used as an add-on to another program. Just change the line numbers to 32651-32658 (being careful to change the traps and

branches in lines 120, 130 and 160) and add the line:

```
32650 CLR: LIST "D:TTT",0,32649
```

"When you want to run SEARCH, just type in GOTO 32650.

```
=====
100 DIM A$(120),B$(20),C$(30)
110 ? CHR$(125);"STRING TO BE SEARCHED
FOR";:INPUT B$:FOR I=1 TO LEN(B$):C$(
I)=CHR$(ASC(B$(I))+128):NEXT I:?:
120 OPEN #1,4,0,"D:TTT":TRAP 240
130 R=0:INPUT #1;A$:IF LEN(A$)<LEN(B$)
THEN 130
140 FOR J=1 TO LEN(A$)-LEN(B$)+1:IF A$
(J,J+LEN(B$)-1)=B$ THEN A$(J,J+LEN(B$)
-1)=C$:J=J+LEN(B$)-1:R=1
150 NEXT J:IF R=1 THEN ? A$:CHR$(253);
CHR$(253)
160 GOTO 130
240 CLOSE #1
=====
```

LINEUP

"On your screen, programs are listed in 38 columns. This is a limitation of the screen. Printers, on the other hand, can print in many more columns than that, which can sometimes create confusion when you LIST a program to the printer. It would be much more convenient if you could just list a program to the printer exactly as it appeared on the screen. LINEUP is a utility to do just such a task. Let's suppose you have a "Small Miracle" to make available for this column (we hope you do, and you will!) Simply LIST the program as "TTT" and LINEUP will print it out in 38-character lines as you see in this article. (If you prefer longer or shorter lines, just change the value of Q in line 10).

"This is, of course, the basic program. The extra code to print out inverse and control characters is, as my old math prof used to say, an exercise left to the reader."

```
=====
10 Q=38:DIM A$(120),B$(Q):OPEN #1,4,0,
"D:TTT":TRAP 60
20 INPUT #1;A$:FOR I=0 TO 3:IF LEN(A$)
>I*Q THEN GOSUB 40:NEXT I
30 GOTO 20
40 B$=A$(I*Q+1)
50 PRINT B$:RETURN
60 CLOSE #1
=====
```

NOTEPAD

Thank you Mr. Humfeld for your submissions, and now I'd like to thank Eugene Hagewood for his NOTEPAD. Mr. Hagewood lives in Darmstadt, Germany where, he says, the 520ST computers are "really selling well. Lots of third

party support and user group programs available. Apple can't compete with the ST." Anyway, this program is used when one gets brilliant flashes of genius that never last very long. Quickly load up this program, give a drive and a note number and write your note so you won't forget it later on. The program is especially useful while programming in BASIC, since it can be listed to disk and entered back to write a note without destroying your program. "I'm often interrupted by my children or wife while deep in thought. This program gives me a fighting chance of recovering my idea...I have a disk with nothing but notes on it!" writes Mr. Hagewood. I find the program equally useful, and I hope you will too.

```
=====
1 CLR :CLOSE #6:OPEN #6,12,0,"S":POKE
  82,0:DIM A$(40):? "Input the drive a
  nd note number":;INPUT D,N:GOSUB 9
2 CLOSE #1:TRAP 3:OPEN #1,4,0,A$:FOR
  A=1 TO 23:POSITION 0,A:INPUT #1,A$:?
  A$;:NEXT A:? CHR$(29);CHR$(157)
3 POKE 752,0:CLOSE #1:OPEN #1,4,0,"K"
  :POSITION 0,0:? "Drive: ";D;" Note: ";N
  ;" Press ESC twice to end"
4 GET #1,A:IF (PEEK(84)=1 AND A=28) 0
```

```
R (PEEK(84)=23 AND A=155) OR A=125 TH
EN GOTO 4
5 IF A=27 THEN GET #1,A:IF A<>27 THEN
  ? CHR$(27);
6 IF A<>27 THEN ? CHR$(A);:GOTO 4
7 TRAP 1:POKE 752,1:? CHR$(31);:CLOSE
  #1:GOSUB 9:OPEN #1,8,0,A$:FOR Y=1 TO
  23:FOR X=0 TO 39:LOCATE X,Y,A
8 A$(X+1,X+1)=CHR$(A):NEXT X:? #1,A$:
  NEXT Y:CLOSE #1:GOTO 1
9 A$="D1:NOTE.000":A$(2,2)=CHR$(D+48)
:A$(9)=STR$(N):RETURN
=====
```

If you have any short programs you are especially proud of, send them to:

Atari's Small Miracles
c/o Mark A. Brown
7097 Game Lord Dr
Springfield, VA 22153

Thank you everybody for your letters and programs.
Keep 'em coming and I'll see you next month.

"Washington's Leading ATARI™ Dealer"

Since 1979

Your #1 source for all ST & XE products

ST PRODUCTS

520 ST	call	Sundog	
1040 ST	call	Easy-Draw	C
SS Drives	\$149	Music Studio	A
DS Drives	\$219	Kings Quest	L
Mono Monitor	\$175	VIP Proff	L
Color Monitor	\$349	DB Man	
6" Drive Extension	\$15	Lattice C	
		Personal Pascal	

XE PRODUCTS

130 XE	\$129.95	Atari Writer +	\$49.95
1050	\$159.95	Syn Calc	\$39.95
1027	\$99.95	Syn File	\$39.95
Green Monitor	\$84.95	Silent Service	\$29.95
Amber Monitor	\$89.95		

SPECIALS

SS Disks, box 10	\$8.95
SS 3.5 Sony 10	\$19.95
DS 3.5 Sony 10	\$29.95
1200 Baud Modem	\$99.95
Pawn for ST	\$29.95
Degas for ST	\$24.95
AtariWriter Cart.	\$29.95
Ultima IV	\$37.95

With this ad only



HOURS

M, T, W, Sat.	10-6
Th, Fri	10-8
Sun	12-5

Applied Computer Associates, Inc.

16220 Frederick Rd, Gaithersburg, MD 20877

948-0256

Outside Maryland
1-800-4 ATARIS

Atari, XE, ST trademarks of Atari Corp. (U.S.)

Kiddies & Bits

by Susan Wolf

You may notice that my column has a new name and is no longer solely about Logo in the schools. I decided to use a more generic title since, in my new position as computer resource teacher for Area III of Fairfax County, my involvement with computers and kids has expanded quite a bit.

There is a variety of new activities being introduced to children. Most of the children in our schools are no longer in need of the computer literacy instruction as it has been defined up to now. Many school children have been using the computer for word processing, drill and practice or some other kind of commercial software, or Logo for some time now. The extent to which your children would have had exposure to technology would depend on the particular school or teacher. But regardless of where your child attends school, it is likely that new computer activities are going to be added.

This summer, in our "computer literacy" classes the instructors tried out some of these new activities, and the results were quite positive. We felt that for the students to become truly literate they had to actually become computer users. These children were introduced to data bases, spreadsheets, graphics packages, programming, and word processing. We wanted the children to use the computer in a variety of ways and gain an understanding of the computer's capabilities. By using the computer for several different applications, the students became truly literate.

Perhaps if I describe some of the activities, it may give you some ideas about things to try with your own children:

1. The children used AtariWriter to write their own mystery stories. They wrote about their characters, collected clues, and made up witnesses using files that were already on disk. When they had outlined all their ideas they created original mysteries.
2. The class used SYNFILE+ to create a database about dinosaurs. Everybody collected information, and then they compiled their facts into the database.
3. The students used SYNCALC to design a spreadsheet comparing how much it costs to keep different kinds of pets.
4. The children used AtariWriter to write acrostics of their Names:

S - Satisfied
U - Unusual
S - Super
A - Atari
N - Nutty

5. The students were given a literal translation of the Gettysburg Address. Then they received a list of corrections that needed to be made, and used AtariWriter to make the corrections. The speech, with all the errors, had been stored in a file on disk.
6. The students were taught how to use graphics packages such as Visualizer, Print Shop, and Megafont II to produce many pictures of their own design, as well as covers for some of their stores.
7. Some students used Computer Eyes, a video digitizer, to print out computerized pictures of themselves.

The results show that children, especially from 4th grade on, can use many computer applications that adults use in their everyday lives. Try some of these things out with a child that you know.

COMPUTERS • DISK DRIVES • PRINTERS

One of ATARI's largest dealers says:

**WE'LL MATCH
ANY PRICE & GIVE
FREE SHIPPING!
THAT'S RIGHT — SIDE-LINE**

Computer will match any advertised price in this issue and give you **FREE** shipping within continental U.S.

Send your order with certified check or money order mentioning page number of advertised item — order shipped **24** hours. **FULL** exchange on DOA defects.

SIDE-LINE Computer

86 Ridgedale Avenue
Cedar Knolls, NJ 07927
(201) 455-7844

FULL MANUFACTURERS WARRANTIES APPLY
APO & FPO ADDRESSES ADD \$5 HANDLING CHARGE.

MODEMS • ACCESSORIES • MONITORS

WE CARRY ALL MAJOR BRANDS

IF WE DON'T HAVE IT - YOU DON'T NEED IT

Tips'N'Traps

by Stevenson & Burke

Hello again, adventurers. We're back to our normal Q/A format. Due to technical difficulties, Joe's Attic (703) 471-1809 will no longer be able to be used as a source for this column. That's why we skipped a month, because we didn't have enough messages to go around. However, we have a new source for Tips 'N' Traps! It's the Adventure message base at the Electronic Age BBS (703) 620-0851, run by Mike Benson. It has two 96tpi disk drives of online storage, over 20 different menu options, and great message bases (10+). Remember, leave your messages there or on ARMUDIC (703) 569-8305. Or call us if you don't have a modem:

Jim Stevenson-----> (703) 378-4093

Barry Burke-----> (703) 830-1978

And now, on with this month's article.

SPELLBREAKER

Q. I don't use the Compass Rose properly. When the hole opens, I retake the compass and go through the hole (north). Once in the octagonal room, I can't get anywhere. The compass has changed (north arm); three of the walls have different runes on them; but so what? I can't move a wall or climb one or open it or REZROV it. What am I doing wrong?

- Larry Franks

A. To go through the octagonal rooms, simply touch one of the runes that are silver. Touching a lead one will not work, and you can only go one direction once.

-Sysop of ARMUDIC

ULTIMA II

Q. Does anybody know where to get food in Ultima][]?

- "Degas"

A. Food's in a lot of villages. The only one I can think of is the village near the castle in Britain. There are others, though.

- "Barracks Rat"

ULTIMA III

Q. In Ultima III, which dungeons have which marks on which level of the dungeon?

- "The Madd Hacker"

A. You find the marks in the dungeons. Wander around, look for a hot rod in the wall. Touch rod with character with the best (Z)tats.

- Scott Hall

ULTIMA IV

Q. How and where do you get other people to join you in Ultima IV?

- JOHN DOWNEY

A. To get people to join you, say "JOIN" when you are talking to them. If they are meant to join you, they will say "I am honored to join thee!". If not, you can usually get info about runes, mantras, codex riddles, the skull, etc. out of them. As to where to find them, there is a person who will join you in most every town except your base town.

- Dean Edward Miller

Q. I am a partial Avatar in everything but compassion. Unfortunately I didn't realize until too late that the visions you get at the shrines are letters. I remember all but the letter from the shrine of honesty. Could anyone out there give me a clue? Also does the skull do anything but make thunder? (I've copied the player disk. So now I have a "GOOD GUY" disk and a "BAD GUY" disk. A useful thing to have because you can do morally damming things on it and not have to start over.)

- Nick McDowell

A. I haven't used the skull, so I don't know what it does, but I think I can help with the letter. I didn't keep notes so I can't be sure, but I think it was an F.

- Robert T. Menton

A. The skull does have some value other than take away all your Avatar parts and make thunder, but you won't know it. Ask at the pub in Buccanneer's Den to get you started.

- Dan Greenblatt

Q. Where do I get the 8th guy in my party (the shepherdd) and where are the runes, I got hjch but know where valor is and need the mandrake and other reagent, also the golden wheel for my boat, in other words, where is the cape of heros?

- "Zero the Hero"

A. Ask around for the runes. There is one in Britain in the Inn-area, and one in Yew in the jail area.

- "Degas"

A. Three things you need are the bell, book, and candle. The bell is at NA-LA in Either Serpant's hold or Empath Abbey. The book is under "t" in the library in the Lycaum. The candle is at AB-BG in cove, through a secret door in the left wall of the temple. To get to cove, sail your ship into a whirlpool and go south in the lake you end up in.

- "Hippie Hacker"

A. The shepherdpard is found in the ruins of Maginicia, and maginicia is located at lat. K'J'' long. L'L''. The wheel is at lat. N'H'', long. G'A'' (S-SE of Trinsic). Mandrake is at K'F'', G'E'' but only at midnight (when there are no moons at the top of the screen). Nightshade can be found at J'F'', C'O'' (again only at midnight).

The Rune of Valor is behind the walls in Jhelom. You need the Dispell spell to get it.

- James Bailey

Q. Can someone please tell me where to find Katrina? I went all the way to the bottom of the abyss and it turns out you need eight people in your party.

- "Barracks Rat"

A. She is on the outside of the water barrier to the south in magincia, if you know what I mean? This is what I was told, and I found her.

- "Zero the Hero"

Q. Where is the silver horn (detail location), the ship with the magic hull, the fork, golden wheel, the skull in buccanneers den, the shepherd and shade root. I have the bell, book, candle and most of the stones, but I'm lost when it comes to these objects.

- "Craig Waive"

A. The horn is on an island (use search) NE of Skara Brae and S of Empath Abbey and the Spirit Woods. The island is only about two spaces and is surrounded by about 10 others (don't confuse with swamp islands. The ship with magic hull can be found in the cape of heroes. If you search on the right spot you'll find a magic wheel. The skull is found at midnight in the middle of the ocean and it will be surrounded by fire. The shepherd is just a little south of the entrance of magincia. Nightshade is found at J'F'', C'O'' at midnight only.

- James Bailey

KING'S QUEST II

Q. How do I get past the poisonous river to the old castle in King's Quest II? Also, do I need anything else from Hagatha besides the nightengale?

- Dean Edward Miller

A. You have to open the first two doors across the bridge, and no, you don't need anything else from Hagatha.

- Barry Burke

EASTERN FRONT

Q. I got a call from a member who was just given a cartridge version of Eastern Front. Although he did get some kind of docs with it, he still needs to know how to use the Fleiger Corps (airplanes) and how to use the combat modes in expert mode. Anyone know?

- Barry Burke

A. In expert Mode movement is:

joystick up = standard
dn = forced march
rt = assault
lt = entrench

A. Fliegerkorps: moves in forced march mode; use assault mode for support. Points added vary by dis away from supported unit: full if adjacent, 1/4 at max dist of 8

squares.

- Dick Knisely

PLANETFALL

Q. I'm in dire need of assistance! I've gotten to the second complex in Planetfall, but I can't find the access card I need to work the miniturization machine. Also, I can't find the laser that I'm going to need in order to blow the speck. Can anyone help?

- Robert T. Menton

A. You will need Floyd's help in getting the access card from the room with the mutants and the laser is back in the tool room where the magnet was found. But, you can't get back on the shuttle! You have to find another way back!

- Michael Pollak

EIDOLON

Q. Does anyone out there know how to get past the second dragon in Eidolon?

- Jim Stevenson Jr.

ENCHANTER

Q. How do I get the turtle to tell me where to find a scroll? I'm about to strangle the little creep, then use the kreb spell to heal the willful damage!! I've even tried feeding him the garbage from the kitchen, but I'm not allowed to pick it up. Also, how do I get past that hammer on my way out of the southern tower? Any other advice would be greatly appreciated, but I would like to work out that dungeon thing on my own.

- Robert T. Menton

A. You have to cast the spell that lets you talk to the turtle in his own language and tell him to follow you. I think there's more but it's been so long since I've played it.

- Barry Burke

A. Get the turtle to follow you to the tower. You can't make it past the hammer, but the turtle can. You just have to tell him what to do and speed him on his way.

- Paul Mattia

INCREDIBLE HULK

Q. I've gotten the Bio-gem and released the Antman. I think I have just about every gem there, but now what?

- Bill Mehojah

A. I haven't finished Hulk, but if you go in the dome by the anthills, you'll find a gas outlet. Plug it with the wax and get mad. Dr. Strange appears and gives you a gem. I don't know what next, though.

- "Hippie Hacker"

SAVAGE ISLAND

Q. I need to know how to get the log out of the volcano

(after you get the knife and plastic block from the lake).

- "Targon"

A. Swim west with the log to get it to the secluded cove. I don't think you need it after getting the stuff in the lake, though. Oh! You need the password to play part 2. It's 123.

- "Hippie Hacker"

CONAN

Q. Does anyone know how to get past level 6 on Conan the Barbarian?

- "Mr. Mister"

A. You have to hit about 6 eyes and a ladder will appear. Climb the ladder and throw a sword out to the chandelier. The chandelier will fall crushing the power station below it. The energy field blocking the door will be cut off and you can walk right through.

- "The Rat"

ENCHANTER

Q. Does anyone out there know how to get through the maze of translucent rooms in Enchanter? I was told that you have to get through it to get to an important scroll, but I've been wandering around for days without finding anything. I think that's the only scroll I'm missing, so

I guess it's important.

- Robert T. Menton

A. In order to complete the maze, you have to find the map. Once you do, you should be able to draw your own conclusion.

- Paul Mattia

SEVEN CITIES OF GOLD

Q. How do I keep my ship from disappearing? I leave it for a while, come back, and it's gone. Are there certain places you can't leave it?

- James Bailey

A. Make sure that you leave some men and food on the ship or else the other crew will leave you. The number of men you have is your landing party. There are also other hands on the ship at all times, and they can not leave the ship and are not in your total number of men. Also, do not go away for too long, or the ship will run out of food, and the ship will leave without you, or you can run out of food and men.

- "Ekim"

BOUNTY BOB

Q. What are the warp codes to skip levels from level 12 and above?

- Anonymous

<b style="font-size: 1.5em;">FULL SPECTRUM COMPUTERS			
130 XE COMPUTER		1050 DISK DRIVE	
\$129.99		\$129.99	
<small>SCREENS \$17.99 ATARIWRITER+ 19.99</small>		<small>PRINT SHOP \$29.99 SILENT SERVICE 25.99</small>	
1040ST		ST SOFTWARE	
<small>COLOR \$999.99 MONO \$849.99</small>		<small>ACTION PAK \$34.99 REGENT WORD \$29.99 dbMAN \$69.99 MANY MORE TITLES</small>	
520ST			
<small>COLOR \$799.99 MONO \$499.99</small>			
PANASONIC PRINTERS			
KX-P1091 \$249.99		KX-P1088 \$219.99	
DISKS			
5.25"		3.5"	
<small>BONUS SS/DD \$5.99 BONUS DS/DD \$6.99</small>		<small>MAXELL SS/DD \$15.99 MAXELL DS/DD \$29.99</small>	
WE WILL BEAT ANY LOCALLY ADVERTISED RETAIL PRICE! <small>PRICES GOOD WHILE SUPPLIES LAST.</small>			
<small>Located in Dumfries. From I95 take Rt. 234 toward Dumfries. Turn right on US Rt. 1 and go approx. 1 mile to FULL SPECTRUM on right (next to Dumfries Discount House).</small>			
221-6620			

THE CATALOG™

SOFTWARE CONNECTION

Where quality, value and availability count

SYSTEMS AND TELECOMMUNICATIONS

Chameleon (AP0113) \$19.95
 Backtalk (AP0154) \$19.95
 Sherlock 1050 (AP0155) . . \$19.95
 Extended DDT (AP0171) . . \$19.95
 Bulletin Board Construction Set (BBCS)
 For Hayes (AP0146) \$24.95
 For MPP (AP0181) \$24.95
 For 1030/XM301 (AP0153) \$24.95

SECRETS OF C

Deep Blue C (AP0114) . . . \$19.95
 Mathlib For Deep Blue C (AP0132) \$19.95

SOFTWARE MAGIC

Word Magic/Graphic Magic (AP0130) \$19.95
 Spell Magic (AP0144) . . . \$19.95
 130XE Magic (Word/Graphic/Spell Magic) (AP0160) . . \$29.95
 Calc Magic (AP0177) \$24.95

SOFTWARE PLUS

Speed Read + (AP0164) . . \$19.95
 Memorease + (AP0163) . . \$19.95
 Picture + /Lister + (2 disk set) (AP0179) \$19.95
 Microbase + (Atari Writer) (AP0172) \$19.95

MASTERPIECE GRAPHICS

RAMbrandt (AP0157) \$19.95
 RAMbrandt (masterpiece slide show) (PD0073) . . \$10.00
 RAMbrandt Solid Object Module (AP0182) \$15.95
 Graphic Shop (AP0156) . . \$19.95

TOOLS OF THE TRADE

Data Manager XL (AP0129) \$19.95
 Printer Driver Construction Set (AP0131) \$19.95
 Creative Process (AP0151) . \$19.95
 Screen Plot (for the 1020 plotter) (AP0135) \$19.95

TRAVEL TO THE STARS

Mapware (AP0134) \$19.95
 Earth Views (AP0141) . . . \$19.95
 Space Base (AP0142) . . . \$19.95
 Orbit-trip to the moon (AP0168) \$15.95
 Astrology (AP0167) \$15.95

GOOD SOFT FUN

XTal (AP0158) \$15.95
 Colossus Chess 3.0 (AP0161) \$15.95
 Chop Suey (AP0162) . . . \$15.95
 Colour Space (AP0166) . . \$15.95
 Family Tree (AP0133) . . . \$19.95
 Blue Team Bridge (AP0178) \$15.95
 Rhythm Composer (AP0180) \$15.95

THE ULTIMATE GAME

Ultima I (TH0001) \$49.95
 Ultima II (TH0002) \$49.95

CALL NOW—IT'S FREE!

800-443-0100 ext. 133

24 hours-a-day for credit card holders. (Continental USA and Hawaii)
 WE WANT TO HEAR FROM YOU TODAY!



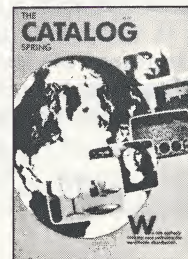
Enclose your check or moneyorder (no cash) with the items you are purchasing clearly listed on a sheet of paper. Please print the title as it appears complete with the (APO #) and price. ADD \$3.00 SHIPPING. California residents please include 6.5% sales tax. INCLUDE YOUR NAME, ADDRESS, ZIP CODE, PHONE NUMBER. Send your order to: THE CATALOG, 524 Second St., San Francisco, CA 94107.

Products from "THE CATALOG" are backed by the "Antic Customer Satisfaction Guarantee"

WE ALSO SELL ST SOFTWARE. For more information on all of "THE CATALOG" products write to the address above attention "Customer Service."

OR CALL TOLL FREE 800 443-0100 ext. 133 for a FREE 40 page color catalog.

• Retailers—Inquire about our Dealer prices. Call (415) 957-0886.



Lister Plus and MegaFont II+ Go "One-On-One"

PART THREE: RESULTS AND CONCLUSIONS

by W. Williams Schadt

The May and June issues of CURRENT NOTES included the first and second parts of this series which introduced the features of two printer utility programs called Lister Plus and MegaFont II+. This final part contains the results of timing tests, a list of specific difference between the two programs, and my final conclusions.

When Lister Plus (LP) is booted with BASIC installed, the printer selection menu appears in 38 seconds and the main menu appears 2 seconds later. The same figures for MegaFont II+ (II+) are 54 and 8 seconds respectively. If you boot LP without BASIC, the screen goes blank while II+ is more forgiving - it boots just fine with or without BASIC.

Both of these programs can print a file containing graphics and inverse characters. In order to test this feature, a BASIC program was created containing 22 REM lines with every other line containing either inverse video or graphics characters. The length of the lines varied from 30 to 37 characters, and the file was LISTed to the disk from BASIC.

II+ has several print features that are not available with LP, so the initial time trial compared only those printing modes which produce identical results. The LP file printing mode was compared to II+ with (1) the screen on, (2) bold printing off, and (3) the normal rather than fast print mode. The tests were performed with all three character sizes, and the following table displays the results.

TABLE 1

PROGRAM	CHARACTER SIZE	PRINTING TIME (minutes)
II+	small	0.88
LP	small	5.13
II+	medium	2.48
LP	medium	5.13
II+	large	4.17
LP	large	5.13

The data indicate that II+ prints the entire file using the three character sizes in 17, 48 and 81 percent of the time it takes LP to produce the same results. If the screen is turned off during printing with II+, the three printing times drop to 0.83, 2.22 and 4.03 minutes respectively. In the fast print mode and with the screen turned off, II+ prints the equivalent of the small size listing in 0.63 minutes. If the bold printing option is also activated to improve print quality, the time

increases to 1.02 minutes compared to 5.13 for LP.

I must mention at this point that I was not able to get II+'s bold faced printing option to work in the normal print or the graphics picture dump mode using an Epson MX80 printer with Graftrax. It works fine in the fast print mode, but in the other two modes the printer skips 1.25 inches between lines and prints each line twice. The II+ documentation states that this feature may not work with all printers and it is certainly true for the Epson MX80.

The next series of tests were conducted to determine the printing speeds for picture dumps. The three picture sizes that can be produced by both of the programs are shown in Table 2 with the printing speeds for each size.

TABLE 2

PICTURE SIZE (inches)	LISTER PLUS (minutes)	MEGAFONT II+ (minutes)
2.6 x 2.6	7.2	1.48
2.6 x 5.4	7.2	3.83
5.3 x 8	14.4	14.4

In the first two cases, II+ was able to produce the same results in 20 and 53 percent of the time it took LP to produce the printed images. The speed of II+ appears to be the result of the smart printing feature of II+ - time is not wasted printing trailing blank spaces. For large images that have few, if any, spaces at the ends of the lines, there should be little difference in the printing times between the two programs. This is clearly demonstrated in the third case in Table 2 where the times are exactly equal.

It is obvious that II+ is much faster than LP in all areas that were tested, and II+ has several features that are not available with LP. But, there are some features in LP that are not found in II+. The following paragraphs mention the primary differences that were noticed.

When a file is printed, LP allows the user to specify how many copies should be printed. The number of copies can be set from 1 to 9, and this feature is not available with II+. Unfortunately, the multiple copy option of LP is not available when pictures are printed.

I found the TYPE-A-LINE feature of LP slightly easier to use than the keyboard entry feature of II+. The ability to save a TYPE-A-LINE file to disk is convenient when you want to make many copies.

Unfortunately, the files cannot be edited.

When using II+, the left and right margins can be set from 1 to 120 while there are only three settings: RIGHT, CENTER and LEFT, available with LP. This may not be important unless you have applications that require precise positioning of the printed characters or image on the paper.

With LP you can replace the graphics characters in the custom font with standard Atari alpha characters. A single line of text can be printed with a combination of both the custom character set and the standard Atari upper or lower alpha characters. This cannot be done with II+.

The distance that the paper moves during each line feed can be controlled more precisely with LP than with II+ which allows you to set single, double or triple spacing only. During the testing I noticed that the default settings for both programs result in different vertical spacing. The 22 line file used to generate the data in Table 1 was 3.5 inches long when printed by II+ while it was 3.25 inches when printed with LP. LP allows the line spacing to be adjusted from 2 to 14, but the units are not specified. The default value of 10 is equivalent to approximately seven lines per inch. Experimenting with other settings resulted in 5 lines per inch with a setting of 14 and 10.2 lines per inch at a setting of 7. These figures indicate that the settings are probably in units of 1/72 inches for the Epson MX80 printer.

LP allows text to be printed backwards. I do not really understand why anyone would want to do that, but with LP it is an available feature during TYPE-A-LINE operations. Backwards printing is not available when files or pictures are printed with LP.

II+ has a pagination feature that skips the printing to the top of a new page after 55 lines have been printed in the normal print mode. Unfortunately, it does not work in the fast print mode.

II+ has a mini version of DOS available as a main menu choice. This was really convenient when the need arises to unlock or rename disk files. LP has directory and format options, but none of the other miniDOS features are built into LP.

II+ has the ability to download fonts to printers that support that feature. That feature is not found in LP.

LP can only print 62 sector picture files while II+ can handle several different picture file formats including compressed Micro Illustrator, Micro Painter, Page Designer and Typesetter Icons.

The built-in printer support of II+ includes Epson, Prowriter, Prowriter BP and Gemini 10 or 10X compatibles

while LP only includes Epson and Prowriter compatibles. LP, however, includes a built-in printer driver builder utility so that other printers can be used.

With a retail price of \$25.95 for II+ and \$19.95 for LP, both of these programs are reasonable priced. But, if I had to make a choice I would definitely pick MegaFont II+ simply because of speed. There is just no way that I am going to wait for over five minutes while LP prints twenty two lines of text in small print. LP would require one hour and 33 minutes to print a typical 400 line program while II+ would do the same job in 16 minutes. When large print sizes are used, both of these programs are very slow, but speed is primarily a function of the printer and the size of the internal buffer.

In my opinion MegaFont II+ is far from perfect, but it is clearly the winner of this "One-On-One" competition.

Be Sure to Tell our Advertisers you saw their Ad In CURRENT NOTES!!!

It's Here!

BASIC COMPILER

only
\$69⁹⁵

For Atari 520/1040 ST

- So easy to use!
- A menu driven GEM application!
- Fully ST BASIC compatible!
- Produces small efficient code!
- Generates a stand alone program!
- Supports GEMSYS and VDISYS calls!
- Has hooks to BIOS!
- No line numbers needed
- Double-precision floating point numbers fully implemented

For the BEST professional BASIC Compiler
on the market today send:

personal check (wait 10 days to ship), money order,
cashiers check, VISA and M/C, C.O.D. (add \$2.00). (California
residents add applicable sales tax.)

— Dealers Welcome —

LDW

Logical Design Works, Inc.
780 Montague Expwy., Suite 205
San Jose, California 95131
(408) 435-1445
Telex: 294526 LDW UR



InSoft ST NETWORK

For the low annual membership fee of \$50, ST Network members can buy Hardware and Software for their ST's at Wholesale + 5%

******* SPECIAL TO NEW MEMBERS *******

With application for membership you can order software from the following publishers at 45% off list (normal discounts are 40% off list):
(add 5% to total, add \$2 for each software package ordered for S/H)

Abacus
Absoft
Academy
Access
Accolade
Activision
Adventure Inter.
ANTIC
Artworx
Atari
(Exc. Devel. Pack)
Batteries Included
Bayview
Beckemeyer Dev.
Better Working
Central Point
DAC
Dragon Group
Electronic Arts
Epyx
Firebird
FTL

Grafikon
Haba
Hisoft
Hippo
Infocom
Mark of the Unicorn
Mark Williams Comp.
Metacompc
Michtron
Microprose
Mindscape
Mirage
Migraph
Opt. Sys. Soft.
OVS
Paperlogic
Pecan
Penguin
Phylon
Power Series
Prog. Comp. App.
Prospero

Priority Software
Proco Products
Psygnosis
QMI
Quickview
Regent
Royal
Sierra On Line
Shanner
Soft Logik Corp.
Soft Technics
Softworks Limited
Spinnaker
SSI
SST
Synapse
TDI
Unison World
VersaSoft
VIP
Windham
Xlent

ST HARDWARE SPECIALS

(list prices are in brackets, wholesale prices are first number)
(add 5% to total)

Abacus books - 25% off list
Atari Hardware
520 ST Keyboard \$340(500)
SM 314 DS Disk Drive ... \$180(299)
Monochrome Monitor \$150(250)
20 MEG Hard Drive \$625(799)
Avatek 1200 Modem \$81(199)
Blank Discs - 3.5"
BASF /10 SS DD \$14(29)
Verbatim /10 SS DD \$14(29)
Brown /10 DS DD \$20(39)
Maxell /10 DS DD \$22(39)
Casio CZ101 Midi Syn. \$270(399)
IB 5.25" drives for the ST
40 Tracks \$190(270)
80 Tracks \$200(280)
Paradox 5.25" drives for the ST
40 Tracks \$190(270)
80 Tracks \$200(280)
Paradox IBM Software Simulator with
5.25" 40 track drive . \$310(420)

EZ RAM (user installed) . \$145(199)
(1 MEG upgrade, 13 solder points)
Hippo Eprom Burner \$85(139)
HippoVision Video Dig. ... \$95(139)
Hippo Sound Digitizer \$95(139)
Logichron Clock Card \$34(50)
Supra 20 MEG Hard Drive . \$625(799)
Supra 1200ST Modem \$125(199)
ST to Par. Printer Cable .. \$15(30)
ST to Disk Drive 6' Cable . \$12(20)
QMI 1200ST Modem \$125(199)
Volksmodem VM520 \$130(199)
Supra MS 64k print buffer . \$51(99)

InSoft's Magazine on a Disk

12 months—\$70
6 months—\$45

InSoft's C Tool Boxes

Math Tool Box—\$59
Search/Sort Tool Box—\$59
Graphic Tool Box—\$59

InSoft ST NETWORK MEMBERSHIP APPLICATION

P.O. Box 180
Boston, MA 02123

1-800-556-5580

1-617-739-9012

Compatibility of ST configuration with software/hardware is the responsibility of buyer

Restocking fee is 15% for merchandise not accepted

Products Ordered	Cost + 5%	S/H	Total
Membership—one year			\$50

Mass. residents add 5% sales tax

☐ Check or Money Order enclosed for \$

Name

Address

City

Telephone State Zip

ST

Antic Presents

THE CATALOG™ OF WORLD CLASS SOFTWARE

Delivered directly to you!

CALL NOW—IT'S FREE!

800-443-0100 ext. 133

24 hours-a-day for credit card holders. (Continental USA And Hawaii)

START—The ST Quarterly. Get your premier issue of START—a power users quarterly with disk. Single copy \$14.95. Yearly \$59.95

SOFTWARE THAT FINISHED FIRST AROUND THE WORLD

Tom Hudson's
CAD 3-D

(ST0214)

\$49.95

A-CALC by
Kuma

(ST0212)

\$59.95

(ST0220)

Flash

\$39.95

WE WANT TO HEAR FROM YOU TODAY!

Enclose your check or money order (no cash) with the items you are purchasing clearly listed on a sheet of paper. Please print the title as it appears complete with the (STO #) and price. ADD \$3.00 SHIPPING, California residents please include 6.5% sales tax. INCLUDE YOUR NAME, ADDRESS, ZIP CODE, PHONE NUMBER.

Send your order to:

THE CATALOG
524 Second St.
San Francisco, CA 94107

Products from "THE CATALOG" are backed by the "Antic Customer Satisfaction Guarantee".

WE ALSO SELL XL/XE SOFTWARE. For more information on all of "THE CATALOG" products write to the address above attention "Customer Service" OR CALL TOLL FREE 800 443-0100 ext. 133 for a FREE 40 page color catalog.

•Retailers—Inquire about our Dealer prices. Call (415) 957-0886.

WORLD CLASS SOFTWARE

Expert Opinion (ST0219)	\$99.95
Maps and Legends—The Cartographer (ST0202)	\$34.95
A-Seka by Kuma (ST0216)	\$34.95
A-RAM by Kuma (ST0215)	\$19.95
GST-C (ST0217)	\$79.95
GST-ASM (ST0218)	\$59.95
MCC Pascal by Metacomco (ST0206)	\$99.95
MCC Macro Assembler by Metacomco (ST0205)	\$79.95
Lattice C (ST0207)	\$149.95
C.O.L.R. Object Editor (ST0201)	\$29.95
Disk Doctor (ST0223)	\$29.95
Red Alert (ST0222)	\$24.95
Star Struck—The Astrologer (ST0222)	\$24.95
Mom and Me (ST0204)	\$19.95
Murray and Me (ST0203)	\$19.95
Ultima I by Sierra (TH9001)	\$49.95
Ultima II by Sierra (TH9002)	\$49.95

SYNFILE+: A Database Management System for your Atari

Reviewed by Joe Waters

[This review first appeared in the November, 1984 issue of Current Notes. Since then, the number of new Atari owners has grown tremendously while the structure of SYNFILE+ (and it's competition on the 8-bit line) has changed very little. Thus, the review is as relevant today as it was then.]

Summary. SYNAPSE describes SYNFILE+ as "the most powerful and advanced database management system ever created for ATARI Home Computers." This claim may, indeed, be true. But, before you run out and plop down your money, let me caution you that the first part of the phrase "most powerful and advanced database management system ever created" is qualified by the second part "for ATARI Home Computers." SYNFILE+ does not compete with mainframe database management packages or with the more powerful 16-bit microcomputer packages like dBASE III. It is, however, functionally very competitive with any other product available for the ATARI, and, indeed, can compete favorably with many of the "filing manager" programs currently available for the IBM PC (excluding, of course, speed and data storage advantages provided by a 16-bit machine.) Bottom line: this is the system NOVATARI, and Current Notes, will use to maintain club records. *[Note: we now use dBMAN on an ST. Ed.]*

SYNFILE+ Packaging: IBM Compatible? The first thing one notices about SYNFILE+ is the packaging -- which is similar for all the SYNAPSE series. The program is delivered in a format which IBM made popular: an attractive cardboard box encasing a three-ring notebook binder which holds the documentation and the program diskettes. The documentation is first class. It not only looks good, but is also well written. Two disks are included. One is the Program Disk, it contains all the code needed to run SYNFILE+. The second disk is a Tutorial, written in BASIC, that covers everything you need to know to use SYNFILE+. The binder, the documentation, the provision of the tutorial -- all are indications of a quality product. Only the flimsy nature of the outside cardboard box hints at the fact that this is a "poor man's" DBMS.

Learning SYNFILE+. The authors have structured the manual in the form of a tutorial that gently walks the user through the step-by-step creation of a demonstration database. In spite of the fact that the manual is quite good, most users will never read it. Most users never read any manual. The tutorial disk, however, will be used. Stick it in, turn on your ATARI, and there you have your own private course. An initial menu lets you choose between Database Introduction, Creating and Editing Forms, Entering and Retrieving Records, and Listing and Labeling Reports. As you work through the tutorial, the system simulates the operation of SYNFILE+. Instead of entering commands or data however, you press the space bar and the tutorial does all the typing for you.

SYNFILE+ is not difficult to learn. By the time you finish the tutorial, you'll be ready to go. After you create one, or perhaps, two databases, input some data and produce some reports, you will be an accomplished SYNFILE+ user. When you learn how to create new databases from old descriptions and merge data from one file to another, you will be a SYNFILE+ expert.

Learning SYNFILE+ is certainly facilitated by the fact that SYNFILE+ is a simple program to use. The system is menu driven: you're presented with various choices; use the cursor keys and select one. If that choice leads to another menu, it "pops-up" immediately and you make another selection. If the choice requires you to provide information, such as the number of characters to reserve for a particular item, you are prompted appropriately. If you don't like any of your choices and want to step back to the previous menu, simply press the ESC key.

I do want to leave the impression that SYNFILE+ is easy to learn and easy to use. However, it's not perfect. ESC doesn't back you out of a choice in every instance. There are times when you have to throw in some garbage answers to get to a screen where ESC works. Similarly, there are other instances where I have run into little annoyances that I wish had been handled differently. I will point them out as I go along.

Using SYNFILE+. I want to give you a feeling of how SYNFILE+ works by using it to create a database that keeps track of your check-writing activities. Put in the Program Disk (no BASIC, SYNFILE+ is written in FORTH), and turn on your ATARI. When you finally see the initial SYNFILE+ screen (70 seconds), the bottom line of the screen presents you with three choices:

FILES	RECORDS	REPORTS
-------	---------	---------

The MAIN MENU. There are only three initial choices. FILES deals with choosing the file you want to work with and includes many of the standard file handling commands (copy, rename, format, etc). RECORDS is used to maintain your database (insert, delete, and change records). REPORTS is used when you want to generate a list of information or preparing mailing labels.

When you start, the FILES option is highlighted. Press RETURN and a "pop-up menu" detailing the available FILE options appears:

Open	Subfile	Density
Close	Merge	Format
Copy	Rename	Delete
DIF->SYNFILE	SYNFILE->DIF	

File Options. The OPEN option is highlighted. Before you press return once more, let's look briefly at the file options. The meaning of Copy, Rename, Delete, and Format should be familiar to anyone who has worked with disk files. Density. Yes, SYNFILE+ does work on either single or double density disks (although if you have two or more drives, all must use the same density. ????? What a pity! I can't use an old 810 (SD) with a new INDUS.(DD)

The "DIF" (Data Interchange Format) options are used to send data to another program (SYNFILE->DIF) or to input data from another program (DIF->SYNFILE). SYNFILE+ allows transfer of data. How fast is another matter. I wrote a program to convert a FileManager 800 database of 150 records (with twelve fields) to DIF format. I then used the SYNFILE+ option to convert this DIF file into a SYNFILE+ file. Although it worked, it took one hour to complete the conversion. In the time it took to write my conversion program and then run it successfully, I may very well have been able to get the task done quicker by just rekeying in all the data.

Subfile is used to create a subset of an existing database and Merge is used to combine one database with another (similarly structured) database. Before anything can be done to a database, it must be "opened"; you would use the OPEN option. When you are done using a database, you use the CLOSE option.

Creating a Database. The first step in creating a database, therefore, would be to use the OPEN option under FILES. Press RETURN and, normally, a list of all the files on your data disk appears. Initially, there are no files on your data disk. In fact, the Program Disk is still in the disk drive. The only thing that appears on the screen is:

* CREATE *

If you had placed a data disk in the drive before you tried the OPEN option, all the data files on your disk, as well as the CREATE option, would have been listed. You would move the cursor to the file you wanted to open and press RETURN. To create a new file, you choose the CREATE option.

Unfortunately, the CREATE PROGRAM is not in the main SYNFILE program. Therefore, if you have a data disk in the drive and you want to create a new file, you have to remove the data disk and insert the Program Disk to load Create. Once it is loaded, you remove the Program Disk and put your data disk back in. After you "create" the structure for your new database, you save it to your data disk, remove that disk, put in the Program Disk, and reload SYNFILE+. All the other features in SYNFILE+ are in the main program. If only SYNAPSE could have fit CREATE in as well, the user could have avoided all this disk swapping. Unfortunately, 48K does have its limits.

Why not put the data disk in drive 2 and keep the

program disk in drive 1? Another "unfortunately." SYNFILE+ will only open data disks on drive number 1. This is one of those little annoyances.

The Create Menu. Once CREATE is loaded, another sub-menu appears above the FILES option:

Create form Edit form SYNFILE+

The names of all files on your data disk are listed above the menu (in this case nothing is listed since nothing is there). Create form is highlighted. Press RETURN and a prompt appears in the menu window asking you to supply a name for your database. Enter a name and press RETURN. Now you are greeted with an essentially blank screen. It's time to define the form you would like your database to take.

Designing a Database Form. Imagine your database as a sheet of paper with one row of information for every check you write. You have six columns labeled "Check No.", "Date", "To:", "Amount", "Item", and "Code." Everytime you write a check you would fill in another row on your paper. Each row represents a separate RECORD. The column headings are called FIELDS. Each field represents some item of information, pertaining to a specific check, that you wish to record. Some items are dollar amounts (Amount), some are textual information (To, Item, Code), some represent integer numbers (Check No.), and some may be dates (Date). The first step in creating a database is nothing more than specifying the number and type of items (FIELDS) we want to keep in our database. This is what the CREATE option does in SYNFILE+.

Positioning the Fields. A form is used to define a database. You start with a blank screen of 21 rows and 80 columns (the screen scrolls left or right as needed showing you 40 of the possible 80 columns at any one time). Use the cursor keys to move wherever you want the first item in your database to be displayed on this form. When you are at the position you want, type in a name for this first field (SYNFILE+ allows up to 66 fields). The name can be anything you want (up to 31 characters) and will be the name you use to refer to this item later for creating reports. Press RETURN and another sub-menu appears:

Text	Numeric	Cumulative
Look-Up	Dollar	Record #
Date	Integer	Counter
Conditional	Computed	

SYNFILE+ Field Types. You may use any of eleven different field types to characterize your data. The meaning of Text is obvious. SYNFILE+ allows up to 255 characters in a text field. That's over three lines on an 80-column page. Plenty of space if you'd like to keep free-form comments in your records.

Numbers can be stored as dollar amounts (Dollar),

integers (Integer), decimal numbers (Numeric), or computed values (Computed). This last type lets you define one item in your database as a function of other items. The definition can include the usual arithmetic operators (+ - * /) as well as six SYNFILE+ functions (ABS, SQRT, LOG, LOG10, EXP, and EXP10).

The Conditional field lets you define a text field as being conditional on another field in the form. For example, you might have a field called BALANCE which could display as either "Profit" or "Loss" depending on whether the value in some other field was greater than or less than zero.

The Date field type will automatically format as / / to hold the month, day, and year. In addition, when you are entering data, the contents of the date field will remain constant with each new record as new records are entered. Thus, you can enter today's date on the first record you insert and that date will automatically be carried forward for every record you enter until you explicitly change it.

The Look-Up field can be particularly useful. It represents a text field where you specify, in advance, all of the allowable entries. For example, if you are recording student schedules, the number of possible courses is fixed and known beforehand. You could record all the course titles in a look-up table. When records are being inserted, only values in the look-up table would be accepted for this field. In fact, if you press the ATARI key (normally gives you inverse video), the permissible values for the look-up field are automatically displayed. When you see the one you want, hit RETURN and it is entered! If you do not enter anything into this type of field, the first value in the look-up table (the default) is automatically entered.

The Record # and the Counter field types are also useful. With Record #, SYNFILE+ will automatically insert an integer (starting with 1 and increasing by 1 up to a maximum of 32,767) for every new record you insert into the database. The Counter field type allows you to specify the starting number (between 0 and 999) and the increment (1-100).

A completed input form for our checkbook database might take this appearance:

CHECK NO.:	_____	DATE:	__/__/__
TO:	_____		
AMOUNT:\$	_____	CODE:	____
ITEM:	_____		

Changing Your Mind. A very useful feature of forms design in SYNFILE+ is that you are not stuck with your initial layout. If you want to move any particular item, just move the cursor to the first letter in the item name and press RETURN. Another sub-menu pops up. This one lets you either MOVE the item, give it a NEW NAME, a NEW TYPE, a NEW LENGTH, or just DELETE it. If you choose to

move it, the item name and it's field are changed to inverse video. You use the cursor keys to move this field. When you are happy with your new position, simply press RETURN and the field is moved permanently.

Note: even after you have created your form and inserted records into your database, you can change the form by using the EDIT FORM option. Moving a field or changing its name or changing the length of a numeric field can be accomplished without making any changes in the database. Other changes, such as changing field length or changing the type of field will require you to save your "revised" form under a new database name. The information in your original database can then be transferred to the revised database by using the SYNFILE+ MERGE option.

Indexing Your Database. When you return to SYNFILE+ and open your newly created database, the first thing SYNFILE+ requires is that you choose one or more indexes. SYNFILE+ keeps track of your records by creating an index on one (or more up to a maximum of 16) of your fields. If you try and retrieve a record based on the contents of a field in your index, the retrieval is very quick -- SYNFILE+ knows exactly where the record is stored on disk. If you retrieve a record based on a non-indexed field, SYNFILE+ has to search through every record in your database to determine whether the record meets the search criteria or not. Index on the fields you will later be searching on.

When you list your data, it will appear sorted (ascending or descending, whichever you prefer) on the index field(s). If you want your data sorted by some other field, it is a simple matter to re-index the file on whatever new field(s) you want.

Entering Records. Entering data is simplicity itself. Open the appropriate file, move to the RECORDS option, and press RETURN. You will see the following sub-menu:

Retrieve	Update all	Re-index
Enter	Delete all	
FILES	RECORDS	REPORTS

Select Enter and the form you just finished designing appears on the screen. Fill it in. You can use the cursor control keys to jump from field to field making whatever changes you like until you are satisfied you have the correct data entered. Press START and the record is automatically inserted into your database and a new blank form appears. Enter as many records as you like.

Retrieving a Record. Choose the Retrieve option and, once again, your blank form appears. You specify the records to retrieve using this blank form. For example, if you wanted to recall check number 123, you would enter "123" in the "CHECK NO." field. Only the record that had

a value of "123" under check number would be retrieved. If you wanted to retrieve all checks that were greater than \$100, you could move to the AMOUNT field, press the ">" symbol and then enter then number 100; only checks with amounts greater than (or equal to) \$100 would be retrieved.

Search Criteria. If you want an exact match, enter the match you want in the appropriate field. You can also request items less than or equal to "<", greater than or equal to ">", or not equal to "#". Note: you cannot specify a range as a search criteria, e.g. "greater than 50 but less than 100".

On text fields you can use the asterisk (*) as a wild character. Thus, "A*" would mean anything that begins with the letter A, "*MD." would mean anything that ends with the letters "MD.", "*ATARI*" would mean anything that has the letters "ATARI" anywhere in the text field. Ranges are similarly not available in text field searches, e.g. you can not request items "greater than B and less than D."

You can search on two fields at once, for example, find all checks > \$100 AND code = "CL". In fact, SYNFILE+ allows you to search on up to 16 different fields at once. When multiple fields are used, you specify whether to use AND or OR in satisfying the search criteria.

Updating a Record. When you retrieve a record, the form you designed is displayed on the screen with the data relevant to that record. "Update" is the default mode. If you want to make a change, move the cursor to the appropriate field and change it. When you go on to the next record, the changes you made are automatically stored on the diskette.

A particularly nice feature of SYNFILE+ is the multiple update capability. Suppose you had recorded LWC in the "To" field on a number of different checks. Now you want to go through your database and change "LWC" to be "Local Water Company". You would use the UPDATE-ALL option. Enter a search criteria that would identify all records with a "To" field value of "LWC". Another blank form would then appear in which you would enter any changes you wanted to make. Enter the new expression in the "To" field. Press RETURN and all the relevant records in the database are updated.

A multiple delete capability is also included. If you specify a search criteria "Date" < "12/30/84", every entry with a date prior to 1985 would be deleted. This could be an incredible time saving feature. Of course, if you make a mistake and forget to put in any search criteria, every record in your database is deleted. But since you made a back-up of your data disk, there is no real harm done. You do make back-ups, don't you?

Reports in SYNFILE+. I'd love to be able to say that SYNFILE+ gives you any kind of report you'd like to have.

But flexibility in report formatting is one of the features that comes only with the higher-priced DBMSs. There are only three different ways to look at your data using SYNFILE+. You can examine (and print) an individual record, you can print a "list" where every line corresponds to a record, or you can make up "labels" where the positioning of items is up to you.

Individual Records. The printed version of your individual records will look exactly like the form you designed. Field names as well as the data in the field are printed on paper in the precise locations you designed into your form. To print a record, you first retrieve it. When it is displayed on your terminal screen, press the OPTION key and a sub-menu appears offering you a choice of printing the record, calculating the record, or deleting it. If you choose PRINT, the record is printed on your printer. (The calculate option is used to force SYNFILE+ to calculate "computed" fields and allow you to view the results before the record is saved.)

Printing a List. Both the list and label reports are found under the REPORTS option of the Main Menu. To produce a list, you enter the name of the field you want listed on a "print format line." You may include up to 40 field names (columns) up to a total of 232 characters. The field names become the column headings. If you append a "+" to numeric field names, SYNFILE+ will calculate a column total and print it at the bottom of your list.

SYNFILE+ will automatically determine the amount of spaced needed for each field (the greater of the field length or field name). However, you can change this default setting by repositioning the field name on the print format line. For example, if you wanted to leave an additional five spaces between the first and second fields in your list, you would move the cursor to the beginning of the second field name and use the CNTRL - INSERT key combination to insert five blanks.

You can send your list (or labels) to the screen, to a disk, or to the printer. If you send your list to the screen, however, you will only be able to see the first 40 columns. The screen does not scroll to allow you to see any data beyond column 40.

If you choose to send the list to printer or disk, you can specify the total page length and include a report title. The page length feature will print the number of lines you request and then eject to a new page, print the column headings again, and continue on with your list. The report title only appears at the beginning of your list and is not repeated on every page. You can use the report title to send any desired printer codes (for example, to turn on condensed print) to your printer.

The Labels Option. When you select the labels option, SYNFILE+ gives you a screen very similar to your

initial create form screen. Move the cursor anywhere on the screen and position fields wherever you like. This function is used primarily for generating mailing labels but can have other uses as well. You are allowed any arrangement of fields on an 80 column by 21 line form. The left margin, lines between labels, and the columns between labels can all be set from 0 to 999. Up to 32 such forms can be printed across the page.

SYNFILE+ allows up to 32 fields to be displayed in a label. A trailing "," concatenates adjacent field data and prints a comma and a space. A trailing "<" concatenates adjacent field data and puts a space between the data.

After you define your label placement, and indicate the number of labels on a page and the desired column and line spacing, you are allowed to indicate any desired search criteria. Finally, you select PRINTER, DISK, or SCREEN to receive the output. You come back to this choice after your report is finished in case you want to send it to another device.

If your initial label design was not quite correct, that's too bad. Because SYNFILE+ does not remember what you specified for your list or label entries. If you go back, the print format line for lists and the screen for labels is blank. This is another major annoyance. You seldom get things right the first time. If SYNFILE+ remembered your last selections, all you would have to do

is edit it to make any desired changes.

SYNFILE+ Utilities. This review has already gone longer than I would have liked. So I will not dwell on the various utilities. I will say that it is possible to use the DIF option to move data from other systems into SYNFILE. The data comes in with fields named "A", "B", "C", etc. and with a minimum text field length of 16 characters after conversion. You can use the edit form option to change field names. If you want to change field lengths as well, you have to define a new database with the same names as that in your original DIF conversion and then use the MERGE option to combine the two. Although it all can be done, it will take a good deal of time and lots of patience.

You send SYNFILE+ reports to ATARIWRITER by sending your report to a disk file and then later using the merge option in ATARIWRITER to include that disk file in your ATARIWRITER program. I have not tried this option.

Conclusion. If you were already familiar with FILE MANAGER 800 or DATA PERFECT, this review should give you a good idea of the relative merits of SYNFILE+. If you never used any DBMS, you should by now have a pretty good idea of just what one does. Is SYNFILE+ worth it? To some people, YES; to others, NO. I do know that with the recent reduction in prices, the proportion of people who will conclude "YES" will certainly increase substantially.

Computer Service Land

14506 - B Lee Road Chantilly, VA 22021

(703) 631 - 4949 / (703) 378 - 8291 (BBS)

We service Atari, Commodore, Epson, Citizen, Percom, and Indus products.

520 ST Monochrome..\$549 520 ST Color.....\$799 1040 ST Mono.....\$995 1040 ST Color.....\$1195 6 month warranty on 1040ST	ST MONITORS SC1224 (Color).....\$349 SC124 (Mono).....\$179	8-BIT PERCOM DRIVES AT88 S1PD (DD W/ Printer Port).....\$219 RFD40 - S1(DD).....\$195 AT88 S1(SD).....\$149
Come In and see Graphic Artist, VIP professional, Easy Draw, and many other titles for the Atari ST & 8-Bit computers!	8-BIT PACKAGE #1 65 XE (64K Computer) 1050 (SD Disk Drive) LIST PRICE: OVER \$300 OUR PRICE: ONLY \$245	PRINTERS CITIZEN MSP - 10.....\$285 CITIZEN MSP - 15.....\$485 160 CPS, Tractor Feed, Graphics capabilities & Epson compatibility
ST DRIVES SF314 (DS/DD).....\$245 SF354 (SS/DD).....\$165	8-BIT PACKAGE #2 130XE (128K Computer) 1050 (SD Disk Drive) ONLY \$279	ST DRIVE ADAPTER Allows use of ST Drives with Percoms, and 5.25" Drives with STs.....\$39 NOW TAKING ORDERS

Much more... Come in for a complete price list..

Beware! Most mail order stores offer NO WARRANTY!

NEW for the ST . . . from MichTron

CORNERMAN

\$49.95

What Sidekick did for the IBM, *Cornerman* does better for your Atari ST! This utility gives you a host of useful desk-top tools in one simple, neat package. With everything from a built in clock to a full function calculator, a cluttered desk is a thing of the past. And as a Desktop Accessory, *Cornerman* is available nearly anywhere within GEM.

- **REAL-TIME CLOCK** in digital or analog form.
- **NOTEPAD** lets you write and store notes for handy future reference and reminders.
- **ASCII TABLE** shows the ST's symbols with their decimal & hex values. Great for programmers!
- **PHONE BOOK** stores all your important names & numbers, dials through your modem and even records elapsed calling time!
- **16 DIGIT CALCULATOR:** works in binary, octal, decimal, and hex; 3 memory registers; math and logic functions; base conversions; "tape" printer output.
- **DOS WINDOW** for easy access to MichTron's Dos Shell program.
- **15-SQUARES GAME** simply for entertainment.
- Doesn't interfere with other programs.

MICHTRON UTILITIES

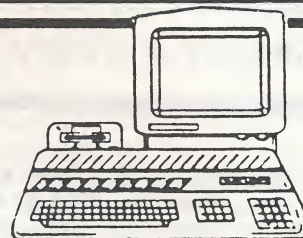
\$59.95

What would a utility be worth that could turn back time and end frustration? Before you find out the hard way that such a utility would be priceless, prepare yourself with *MichTron Utilities*. This utility searches for and retrieves deleted files and lost data. It also lets you change file contents, attributes, file and volume names, or any individual bytes on disk! Just enter replacement data or click on selector buttons. You can format individual disk tracks and copy individual sectors to repair damaged disks. A new 10 sector format utility lets you add 80K of storage capacity to your disks.

Personal Money Manager

\$49.95

This personal accountant will keep accurate totals for as many expenses, income sources and accounts as you need. Print checks and other kinds of reports for a true picture of your current financial status. You can form projected budgets for future expenses and income. Fast and powerful, the Money Manager uses the GEM system for simplicity.



UTILITIES:

THE ANIMATOR (\$39.95) - Animate Neo or Degas pictures for business presentations, or just for fun.
BBS (\$49.95) - Complete Bulletin Board System
BUSINESS TOOLS (\$49.95) - Over 200 attorney-prepared business forms, letters, and contracts.
CALENDAR (\$29.95) - Desktop appointment calendar.
D.F.T. (\$49.95) - Transfer files between the ST and IBM.
DOS SHELL (\$39.95) - Mimics the MS-DOS command structure: "global" commands, batch files, and more.
ECHO (\$39.95) - Uses X-10 modules for a wireless remote-control system for home or office
Introduction To LOGO (\$49.95) - Easy tutorial lets you learn to program in Logo.
KISSED (\$39.95) - Debugger features full-screen editing, miniassembler/disassembler, help function and more.
M-DISK (\$39.95) - RAM-disk emulator gives you the equivalent power of an extra disk drive!
MI-DUPE II (\$39.95) - Fast, easy file duplication.
MI-TERM (\$49.95) - Advanced communication program lets your ST talk to virtually any other system.
MIGHTY MAIL (\$49.95) - Complete mailing-list manager features multi-level sorts and conditional "flags" for specialized reports.
SOFT-SPOOL (\$49.95) - Frees your ST to print & compute at the same time.

ARCADE GAMES:

GOLD RUNNER (\$39.95) - Infiltrate enemy gold mines. 63 screens test your skill and logic (color monitor).
MAJOR MOTION (\$39.95) - Race down the highway, destroying enemy spies as you gain new weapons and defenses (color monitor).
MISSION MOUSE (\$39.95) - Avoid prowling cats as you run and jump to rescue the mice (monochrome monitor).
TIME BANDIT (\$39.95) - Collect the Treasures of Time! Choose from a multitude of worlds: 13 unique arcade lands and 3 complete arcade/adventures (color monitor).

STRATEGY GAMES:

FLIP SIDE (\$39.95) - Play Reversi against live or computer foes.
CARDS (\$39.95) - Blackjack, Cribbage, Klondike, Poker Squares, and Solitaire (medium or high res only).

All reasonably priced, with more coming every day. Ask for our latest catalog!

Dealer inquiries welcome • Visa and Mastercard accepted • Add \$3.00 shipping and handling to each order.



MichTron

576 S. TELEGRAPH, PONTIAC, MI 48053
 ORDERS AND INFORMATION (313) 334-5700



ST Update

by Sommers & Waters

Santa Claus Enhanced ST - There will be a new 1040 ST for Christmas, or before. What it will have beside an integrated blitter chip (that little jewel that speeds up graphics and text by 50-200 times) is not certain, probably not a built-in modem. But it will come forth as a version of the ST, i.e. the "EST", which had been rumored for several months as ATARI's next 16-bit issue. The scenario has it that ATARI wisely decided to keep a star, front stage center and not to appear to walk past the highly successful ST toward yet a more glamorous machine. There is virtually no evidence or even backroom smoke to suggest ATARI is doing anything but making current ST machines "growable" with later versions. Thus there will be a blitter kit for both the 520 and the 1040 machines that are now out there. It will purportedly require a somewhat skilled technician to install it.

TT - This raises the question of the TT, which has been talked about as a device which will be attachable to the current ST's and turn them into a true "Thirty-Two" bit machine, presumably able to run Unix as well as do other high-wire acts. The EST will not replace the TT, but there is yet no date, even approximate, for the latter's appearance.

Quo Vadis "The Blue Box" -- Those of you who had hoped to be working on your office reports on your ST at home in the evening and taking them back to run on your IBM in the office and were heady with the earlier reports that the IBM emulator box would be on counters this fall, may frown when you hear that ATARI wishes to insure compatibility with all the major firms' IBM software and that they are also favoring a more open configuration accepting insert boards. (Amiga may be allowed to smile for a change, since that had been their approach). All this sums to a January-February release date for the emulator, although ATARI is trying to get it out before the end of the year. It also gives ATARI a chance to see if the IBM laptop, with its 3.5 floppy drive, is causing most software to be ported over from the 5.25 disks and if a similar 3.5 drive in The Blue Box will offer access to a wide enough range of IBM software. Guessing is that whichever way ATARI goes, it will also make proviso for the orphaned drive to be "adoptable".

Software IBM Emulator -- With the bad flows the good, and the new news is that a software IBM emulator from Paradox Enterprises of Tucson, Arizona will be out this month, which while not be as fast as the coming box, will serve well and will cost \$125, plus the price of a compatible 5 1/4 inch drive, which not surprisingly Paradox is already offering. (There are two versions to be had, one for the IBM XT with 40 tracks and one for the AT with 80 tracks.) Presumably, ATARI will watch to see with what avidity this program is snatched up, since

their hardware version will probably cost more than the Paradox combination of drive and software. The Tramiels are known for their marketing strategy of "doing more and costing less" and they tend to avoid situations where they are in competition with "cheaper cousins".

Cheaper Cousins -- The first ATARI 20 meg hard drives hit the San Jose Computer Store in San Jose, CA at about 2:20 P.M. 8 August. The supply was bountiful, 20 or so, and the price was \$799. As you read this, we expect you will be seeing ATARI hard drives in the local computer stores. However, the 20 meg SupraDrive has been selling in the area since the beginning of August for \$695. (See SupraDrive review in this issue.) One area dealer suggests that after all dealers are stocked initially, you can expect to see the price drop below that of the SupraDrive, possibly as low as \$495, which was ATARI's original target price, you will remember.

Laser Printer -- ATARI is working on a laser printer which is scheduled to sell for \$1,200. One of the reasons they are able to bring out a machine that will, at this figure, be about 40% less than its nearest competitor, is that it is designed to run on the CPU contained in the ST and will not house one itself. No news on when, but it should hit the market in time to satisfy the brightest gleam in the eye of every desktop publisher -- a laser printer -- one of the fastest growing group of people in the computer market.

G-DOS -- G-DOS will be released by the time you read this. G-DOS will facilitate ST access to a wide variety of devices and will make it easier for software producers to use varying screen fonts and interface with a variety of printers, plotters, etc.

Microsoft WRITE -- Atari will, indeed, be marketing Microsoft WRITE by October. WRITE is the window-based version (ST, MAC, Microsoft Windows) of Microsoft WORD. It is not a clone of MS WORD. If you are used to MS WORD, you will have to learn a different system for MS WRITE but the files should be completely portable between the two systems. Adding the name "Microsoft" to the list of Atari software developers is a clear boon for Atari, but MS WRITE will have some stiff competition from a host of quality word processors that will vie for the Atari market.

Small Machine - Finally, where is it, where is David Small's key to the unlimited world of Machintosh Software, the Mac Emulator Cartridge? As this is composed, the decision ostensibly sits on the desk of the President of Apple Computer, John Sculley. If it's thumbs up, the cartridge could move rather rapidly to the market, and be a Vitamin "M" (money) motivational boost for Apple developers because it would expand their potential market by another 250,000 machines and growing. The chances of APPLE recognizing the value of this, and/or deciding to give a competitor, the ST, a leg up appear slim at this juncture. But who knows, if we all wrote the major suppliers of APPLE software, exhorting them, to look at the bottom line and write APPLE... Or if the user groups got up a petition, and had it sent off

to each of the main suppliers.... (What evil lurks in the hearts of "software-hungry" men.)

On another note, those of you familiar with Mac software, know that only a few items surpass what ST users have and what is coming. We have reviewed about 400 plus Mac programs, and only half a dozen or so really turn your head. So would we buy the cartridge? YOU BET! For THINK TANK and EXCELL alone!

Software -- There is much out there, more than any of us might have believed possible a year ago when we, non-developers, started receiving our machines (late June to be accurate). In fourteen months, a fine product and "policy and people" at ATARI, apparently have caused software to be generated faster than for any machine in its "First 400 Days", except possibly the IBM. Sig Hartman has announced that there are now 600 plus titles for the ST available, and 2000 software developers are now writing software for the existing 1/4 million machines shipped. WAACE area stores report their fastest sales in sometime, selling nearly 500 machines in the past two months alone. One store, ACA, has had the best month of its 5 year history.

ST software is coming at a pace unparalleled. Word Processors, the 1st generation, are already triple the number available for the Machintosh. And now eight new ones are either being beta tested or sold and in use. HIPPO WORD is already here, as is ABACUS' TEXT PRO, along with COLOR WRITER. WORD WRITER by Timeworks, REGENT WORD II and PAPER CLIP Elite should be along by late fall; the last two reportedly being held to add features and insure that they are leaders of the pack when they appear. England is sending us BOFFIN and 1ST WORD PLUS. (All of these to be reviewed by us, with HIPPO WORD coming in the next issue.) Batteries Included's fabled spell-checker, THUNDER! (see review by H.B. Monroe), has already issued an update. (Anybody who has less than Thunder 1.03 should send their original disk to B.I. Canada and you will receive in return the latest version, plus a clock-update accessory and an anagrams program.) N-Vision is already out with improved documentation and under a new name, PAINT WORKS, with Activision Software having taken it over.

MILLIPEDE and STAR RAIDERS are being beta tested, look surprisingly crisp and clear on the ST color monitors (maybe too crisp, destroying some of the illusion of the unreal) and their documentation is in preparation and will be available for Santa time. In game simulations, watch for MEAN 18, Accolade's pro-golf game (watch October issue for review). LEADER BOARD, the other pro-golf simulation, with startling graphics and sounds is reviewed elsewhere in this issue. SPITFIRE 40, a flight simulator for those of you who want to dog fight over Britain in WWII. Electronic spread sheets are new and two: EZ CALC and SWIFT CALC. Batteries Included has a powerful new modem program I*S TALK; look for November review and comparison with the latest comparable programs, FLASH and the ST TALK update, (BI is unique for the % of top products it produces).

Write 500 Times on the Blackboard -- On behalf of the frustrated ST 1040 crowd, with their fingers gone arthritic at too early an age, we are asking Jack Tramiel, in front of his staff with accompanying photographer, to insert a mouse plug into its port and take it out a mere 500 times. Such penitence for putting out a machine with a joy stick or mouse port that can only be located with surgical forceps and spelunker's head lamp may be considered by many to be inadequate. However, if he or some other enterprising person quickly follows with a 6-inch "tail" that can be attached to such plug ends and used to retrieve and facilitate its placement, all may be forgiven, maybe. However, we are told that if the EST appears with this "rudeness" in tow, no amount of "cake" will appease the hoard that will pound at his gates.

Hats-Off-Award - Our H-O-Award for this month goes to FASTER, a Montreal disk news letter with a difference (\$5/issue). Andre Lafreviere and his group of five other able men have produced a GEM-based interactive menu for their reviews, and software offerings, that can be read in either French or English by merely a click of the mouse. The colorful cover screens for the two issues to date have been exceedingly well done. Hats-Off FASTER for your advances in disk news letters, and "bon chance". For more info contact the F.A.S.T.E.R. BBS (514) 489-0680 or write Andre Lafreniere, 1161 Des Fauvettes, Boucherville, Quebec, Canada J4B 6A8.

THE WAIT IS OVER!

MT C-SHELL™ IS HERE.

MAIN FRAME PERFORMANCE FOR YOUR ST . . .

- Multiuser and Multitasking
- Electronic Mail
- Print Spooling
- Unix™ Like Environment
- And it Runs TOS Programs

\$129⁹⁵
COMPLETE



**Beckemeyer
Development Tools**



592 JEAN STREET, #304, OAKLAND, CA 94610
415/658-5318

Going Online

by Ed Seward

Online News. By the time you read this there should be a new version of FLASH available. The big enhancement is the VT100 emulator which has been tested using the UNIX vi editor. Details will be placed on the WAACE BBS.

Thanks go to George Smyth for finding out that ST-TALK version 2.0 is being rewritten completely in Megamax C and should be released in November for \$29.95 with upgrades available for \$10. QMI will be returning the disks and money to those that already sent in their \$2 and original disk for upgrades. The \$10 sounds very fair for a total rewrite with numerous added features.

Avatex has released their 1200hc (the "hc" is for Hayes Compatible). It is selling for as little as \$130 and comes with a fairly thick manual. This model is much more flexible than the older 1200 but the older 1200 works fine with almost all ST terminal programs and sells for as little as \$90.

My last little note is for those ST hardware developers that read *Current Notes*. Something that would be very useful is an interface device to allow multiple modems to be controlled by the DMA and RS232 ports yet still allow other devices (like a hard disk) full access to the DMA port. Our need for this is the need to run up to four modems and users access to an ST BBS.

WAACE ST BBS. This month I am going to cover only three aspects of the BBS. The first is signing on to the BBS. On connecting to the system, you need to hit "Return" twice with a slight pause between key strokes. After the welcome screen, you are asked to enter your ID number or name. If this is the first time you have accessed the BBS, just enter "0" and "Return". If you enter zero, you are required to supply some information. Callers are usually validated the same day as checks are received. If this is not the first time you have called, the next request is for your password.

Assuming you have completed the sign-on properly, you are presented with a list of announcements with a prompt of "Select (Q=Exit)>". After entering "q", you are informed whether or not you have Email waiting. Next you see the main function prompt "Command>". Before I forget, let me mention that at most prompts you can enter "?" to get a list of commands. Another thing is that you can chain commands by entering "/" between commands on the same line. For example "F/12/L/A" at the main prompt selects the file category for Desktop Accessories and lists the new files in that directory.

Downloading a File. The second most frequently asked question I get is how to download a file (the most

asked question is which terminal software I recommend). To download (or upload) a file, you first enter "F" at the main function prompt. You then see a list of 12 file directories or categories and are asked to select a category. Let's try number 12 - Desktop Accessories. The next prompt is "Files Cmd (?=Help)>". At this prompt enter "L/A" to List All of the files in this category or "L/N" to List New files that have been uploaded since you were last on the BBS. One of the files here is "WORD400.ACC". At one of the prompts within the Desktop category, enter "D" for download. You are then asked for the name of the file to download -- enter "WORD400.ACC". You are then asked to select a file transfer protocol -- enter "X" for xmodem. At this point, set your ST up to receive xmodem and start the transfer. To get back to the main prompt, enter "Q" at the "Files Cmd (?=Help)>" prompt.

Reading Messages. To get to the message bases from the main prompt enter "M". You are then presented with a list of the message bases. For our sample, let's use base number 1 - General Chit-Chat (ST). Enter "1" at the "Select>" prompt. The BBS will then tell you how many messages are in this base, the highest number of a message you have read, and the last message entered into the base. You are also told which unread messages are addressed to you. The prompt "Msg Cmd (?=Menu):" is now displayed. Assume the last message you read was number 375 and the highest number message is number 393. One way to read all the messages inbetween is "R/376-393" which starts displaying the requested messages. At the prompt after each message, you can hit return to read the next message. If you come across a message you would like to reply to, enter "A" for answer at the prompt after the message.

WAACE BBS Signup. The WAACE BBS is open to all *Current Notes* subscribers and members of WAACE user groups for an annual fee of \$7.50. Right now the system is running FOREM ST on a 520 ST with one double-sided drive and a Supra 20 meg hard disk. (The other drive is temporarily supporting ARMUDIC which, with the ST BBS, was recently hit by a lightning strike which wiped out EVERYTHING. However, thanks to the heroic efforts of Ted and David Bell, we were up again and running in a remarkably short time. We all owe our SYSOPS a big THANKS for everything they have done.)

Those who are members of a WAACE user group or subscribe to *Current Notes* and wish to have access to the ST BBS should send a check (made payable to "NOVATARI") to:

Ed Seward
P. O. Box 6826
Alexandria, VA 22306

Please put WAACE BBS in the comments section of the check.

Homework Helper: MATH

A Letter from the Teacher

Reviewed by Bill Moes

Dear Mr. & Mrs. deNemh,

School has begun again and I know you're concerned about your daughter and her work with math word problems. Let's face it. As far as math goes, Sue is still counting pebbles.

There's a software package for your Atari ST, though, that is specifically designed to help students in grades 7-12 with those word problems. You might want to take a look at "Homework Helper: Math (HHM)," a \$49.95 2-disk package from Spinnaker.

The program opens with an introduction which explains how to use the program and gives general tips for solving word problems. Then the main section presents five types of problems: number, age, distance, coin, and units of measure.

First, in the tutorial level, Sue will be directed to the problem's solution with the careful guidance she sorely needs. After that, there are three more levels offering from five to fifteen problems each. Here Sue will receive less explanation and the problems will become more complex.

Maybe you'd like to see examples of these problems so you can tell if Sue would be helped by HHM.

A level two problem with numbers reads: "If 16 is added to 5 times some number, the result is 76. What is the number?"

And at the most difficult stage, a level four problem in mixture reads: "How many pounds of pure salt must be added to the 40 pounds of a 5% salt solution in order to create a 24% salt solution?"

In fact, Mr. & Mrs. deNemh, perhaps you'd each like to take a minute now to come up with the answers to those two problems. Or is that like rubbing some of that salt in?

If Sue is like most students, a little help along the way could be a blessing. The program has the <HELP> key available for just those moments. The first time she presses that key, there'll be a little nudge toward the answer. That's sort of like showing the horse the water trough. The second press on <HELP> gets the answer itself. That's right: stick the horse's nose right in it.

Sue will be completing a grid as she solves each problem. This grid will help set up an equation for the

final solution to that problem. You must remember that HHM is designed to help with strategies for solving problems and translating words into math symbols. Therefore, a calculator screen is available to solve the actual equation.

This calculator will display all the steps it uses in solving the equation and will allow Sue to print those steps out. I wouldn't really recommend that Sue take those printouts and just hand them in to her teacher for extra credit, but if she studies the printouts she'll have a better understanding of how equations are solved. That might help with her other work in math.

The ST's function keys are used to call up the calculator, skip a problem (don't let Sue hit this one too often), or exit the level. The used function keys are separated by unused ones so even someone with well-stocked fingers like Sue won't often hit the wrong one.

You know that Sue often has math homework, despite what she likes to try telling you. Well, this calculator along with a work grid may also be used for her homework problems. Your daughter may finally start using the ST for something other than "Time Bandit."

Sue will see six to eight text/background colors and no mouse use. There's a little jazzy music with HHM's title screen and then again when the fourth level of a problem type is completed. Otherwise, there's wonderful silence. You folks won't be distracted from those "Mister Ed" shows.

Because there are problems at different difficulty levels, you may even want to have Sue's brothers take a turn. Your daughter may also want to show the software to her classmates for use in school.

By the way, did you get the answers to those two problems listed earlier in my letter? Why don't you exchange your papers and we'll check. The first answer was 12, the second was 10 pounds. No, I won't say anything to Sue about your work. She'd just mumble something about genetics.

So that's it. There's a lot of magic and power in math. But Sue will have to develop those skills with a bit of her own effort.

Assuming she works at it, the approximately 150 problems in the program will provide Sue with hours of instruction, aid, and learning.

Indeed, "Homework Helper: Math" could provide some help for quite a few students, including those who understand what they hear when they say Sue's full name quickly and listen to the sounds.

A N S I G R A F b y G R A F I K O N , L t d .*by John Antoniadis*

There is no doubt that we are in the midst of an information revolution. Bigger and better computers are a daily occurrence, along with huge networks and databases. Personal computers are very important pieces of this puzzle. We go to the trouble of collecting this information, so we may as well access it. How? Terminals, of course, which along with disk space are two things computers never have enough.

Dedicated terminals are not cheap, especially if they have any "intelligence" whatsoever. Personal computers now offer so much power for so little money, that dedicated terminals should become a dying breed. In addition since the personal computer is programmable, it can emulate most any new terminal protocol rather easily. The Atari ST computer is a product that has the potential of taking over the terminal market. (Power without the price indeed! A little larger screen with better resolution will not hurt either).

Personal computers are used mostly as word processors or terminal emulators. They can emulate a plethora of terminals, usually at a very reasonable cost. The most common emulation modes include the DEC VT series terminals (VT52, VT100, VT102, VT240 etc.), the Tektronix family of graphics terminals (4010, 4014, 4107, 4027 etc.) and the ANSI terminal, which is effectively the same as a VT100.

Early dumb video terminals were essentially the same as the teletypes they replaced. They displayed the received characters sequentially. Later, the smart terminals arrived, which allowed the host computer the luxury of cursor addressing, so that the cursor could be placed anywhere on the screen, with sequences of characters known as escape sequences. Also commands could be sent to clear the screen display special graphics characters, different fonts etc. The graphics terminals had the additional ability to draw lines, turn individual pixels on or off, fill areas, annotate graphs and so on.

The Atari ST series computers have the power to emulate the terminals mentioned above without any loss of performance, and in some cases they exhibit higher performance than the dedicated terminals themselves. The low price of these systems makes them particularly attractive, since you can get an excellent terminal and a computer to boot, for a price lower than most of the terminals that they emulate.

There are quite a few terminal emulators available for the ST series of computers, and they include (as of this writing): FLASH, PC INTERCOMM, I*S TALK, ST TERM, ST TALK, COMMTERM ST (available in Europe), a public domain VT100 emulator (also from Europe), CHAT and last but not

least the VT52 desk accessory distributed free with the ST's. Almost all of the above programs emulate the dumb terminals. Some do attempt to emulate the VT100 series. I say attempt because most emulators support only a subset of the VT100 set of instructions. Features such as bold, underlined, double-width double-height characters, region scrolling, graphics character sets, graphics fonts etc. are not supported in most of the programs mentioned already. Some of these programs include features not found in standard terminals, such as save the current session dialog in log files, editing of text to be used in electronic mail, scripts used in unattended computer sessions or automatic logons etc. A more detailed description of the features of most of these programs can be found in the July/August 1986 issue of *Current Notes* in an article by Ed Seward.

None of the previously mentioned programs supports either a reasonably complete VT100 (or ANSI x3.64) or Tektronix emulation. This is where ANSIGRAF comes in. It supports both modes quite completely, in addition to two other modes: a VT52 and transparent mode (more on these later).

But it is time for a tour of ANSIGRAF. When the program is started, the obligatory information box comes up but thank God it disappears on its own in a couple of seconds (much faster if you use a ramdisk). ANSIGRAF displays have several components. The menu bar, the status line at the bottom of the text screen, the text screen and the graphics screen. The text and graphics screens are entirely separate, and as their names suggest one is used to hold the text and the other the Tektronix pictures. The two screens can be displayed individually or can be overlayed.

The status line contains information about the terminal and is displayed at the last line on the text screen. It can be toggled on/off with the F10 key. The information conveyed in this line is:

- a. Online/Local mode
- b. Emulation mode (Tek, ANSI, VT102, Transparent)
- c. Present screen viewed (Text/Graph/Both)
- d. Transcript status (Open/Closed transcript file)
- e. Time of Day
- f. Caps On indicator
- g. Scroll/Noscroll indicator
- h. Cursor row and column
- i. LED indicators (the LED's present on a VT100 keyboard)

The menu bar can be toggled on by pressing the Help key. It has eight entries:

1. Desk. The familiar desk menu with the banner screen and the desk accessories.

2. File. This allows the user to open, close or replay a transcript (.log) file, save or load a previously saved picture and upload or download files using the xmodem protocol. Transcript files can contain both alphanumeric or graphic data. Pictures can be saved using a Degas-compatible format to allow future enhancement using painting programs, as well as printing using the Degas printer drivers. The ominous light entry of Kermit and Ascii transfer show the lack of these protocols. However the implementation of the Xmodem is quite good and it allows the all important translation of lf -> cr-lf and vice versa. The filenames for the transfers can be simply typed in or a file selector box can be requested.

3. Print. This entry allows the user to obtain a printed copy of the contents of the text or graphics screens, as well as on the fly transcript of the entire session. Graphics dumps are performed as if the Alt-Help sequence had been activated. The built-in desktop printer driver supports only Epson compatible printers, but with the help of Tom Hudson's article in the premiere issue of the START magazine virtually any printer can be supported.

4. Setup. The setup pull-down menu presents the user with a series of dialog boxes which allow the setting of the communication parameters. The "Comm..." entry allows the configuration of the RS-232C port. The Baud rate can be set up to 19200 baud. The Parity, Stop bits, Strip bit, Duplex, RTS/CTS and Xon/Xoff protocols can be selected with clicks of the mouse on the appropriate button. All entries are exclusive, so once an entry is selected, the others choices for this parameter are automatically deselected. The "Terminal..." and "Graphics..." entries allow the setting of the graphics and alphanumeric emulation parameters, which include options for automatic cursor wrap for long lines, software controlled switching from text to graphics mode and vice versa, <lf> and <cr> translation, fast slow or jump scroll modes and Tektronix graphics input mode (GIN) parameters. The last two items in this menu are the setup save and load functions. If a file deflt.sup is on the disk, it will be used as the default setup on program start.

5. Emulation. ANSIGRAF supports five emulation modes: Transparent, Ansi x3.64, VT52, VT102 and Tektronix 4014. The first three modes are alphanumeric, although the VT102 supports a graphics font, and they are displayed on the text screen. The Tektronix 4014 is a graphics mode and is displayed on the graphics screen. The number of lines on the screen can be chosen as 25, 40 or 50. An 80-column mode is currently supported, although a 132-column mode has been promised by the authors. The final option is an online/local mode selector.

6. Screen. This menu allows the choice of the current visible screen. The text and graphics screens can be viewed individually or simultaneously. Menu choices to clear the screen and to return the terminal mode to its default state are also included.

7. Edit. This menu has two choices: Dial and Keys. The dial item allows the naming of up to ten character strings, mainly for storage of dial strings. However any keystroke sequence can be stored in each item. The named sequences can then be accessed by clicking the mouse on the entry containing their name under the Dial menu title.

The Keys entry allows the assignment of any string (up to the GEM-imposed limit of 40 characters/string) to any key combination on the keyboard. Each key can be combined with any combination of the "Alternate", "Shift" or "Control" keys. The procedure is carried out in a very elegant manner. The user selected combination appears in the center of a dialog box (with the keypad keys distinguished from their main keyboard counterparts), and the replacement string appears below, if one already exists. The C backslash formatting sequences (\r,\n, \d[1 sec delay], etc.) are present with their normal meaning.

8. Dial. The function of this item was described above in the discussion of the dial menu item in the previous menu.

This is it for the menu items anyway. But there are many other goodies hidden inside. Like :

You can replace the system font with any of your favorite DEGAS-compatible fonts, just by renaming it ascii.fnt. A terminal emulator with a script font? a nice touch, but hard to read. But you may find that the thin font in reverse video is dynamite. Anyway, if you like Old English fonts, have it your way.

The text screen has a screen memory that currently holds two full text pages. (Why not 102? After all an ST has lots of memory and the program only uses ~ 100 Kbytes). The text screen can be scrolled back and front using the <ctrl>-<uparrow> and <ctrl>-<downarrow> keystrokes.

The [F1] key toggles the choices for screen display, the [F2] key switches between text and graphics modes, and the [F10] key toggles the status line on and off. And yes, you CAN send a BREAK (<alt>-<keypad 0>). In addition any escape sequence recognized by the current emulation mode can be issued from the keyboard.

ANSIGRAF carries a price of about \$80. FLASH is about \$40, I*S TALK is about \$70, ST TERM \$30 and so on. In this case, you get what you pay for. Face it, right now if you need a graphics terminal, you have no choice but to buy ANSIGRAF. But what a pleasant situation to be in, when your only choice is the most inexpensive and

probably the best Tektronix emulator in the entire microcomputer scene. Only the Mac's VERSATERM in my opinion can be compared to ANSIGRAF. PC-PLOT, what a Kludge. V-TERM? Not much better.

One thing you immediately notice about ANSIGRAF is that you turn it on and you know what to do (Look Ma! No manual. What a hacker I am!). Most of the existing terminals do not use the GEM Interface and take several hours of Intense reading to avoid total frustration. All of the existing VT100 terminals (ST TERM, PC INTERCOMM, FLASH, PD VT100 from Germany) are "almost" emulators. Try region scrolling, double-width, double-height characters and status lines, graphics character sets, alternate VT102 ROM character set, bold, underlined etc., and you are in for a surprise, in some cases overwhelming. So even if you need a true and complete VT100 emulator, this is also it. The dialog boxes and the menu items are very well designed and easy to use and quite self explanatory. Well, if you don't know about parity or strip bits or even anything about terminals, the well-written ANSIGRAF manual will prove to be a real lifesaver.

The user interface is fully GEM integrated and quite friendly. Also the emulator's 9600 baud speed is really that: 9600 baud. Most of the other terminal emulators have a 9600 baud setting, but under fire we discovered that it is only a setting. Lots of Control-S's were going to the host. The ability to save the pictures for further enhancement is a nice touch (borrowed from the Mac of course). The ability to save the actual Tektronix vectors is quite valuable, since you are not forced to a bit-mapped picture. All you need as a good Tektronix printer driver and the results are stunning. Well, the GDOS is on its way.

Every program has some faults (otherwise known as reviewers wish lists). ANSIGRAF is no exception. The dial menu is too short. A 100K program on a Half or One-Meg machine with ten phone numbers? The replay capabilities of the log file are almost non-existent. All you get is: here is your log file, end. Well you can pause the listing with the noscroll command and you can abort with the [Esc] key. No browsing back and front in lines and pages, etc. No editor for capture buffers, thus no prefab letters for Email. This is not that hard to do, but I was informed that corrective action is on its way. No Vidtex emulation or scripts is visible.

The wonderful feature of redefining any combination of [alt], [ctrl] and [shift] with any key provides tremendous customizing power. But there is no way to see what you have defined, so you better remember what you have done, or else you may find the keyboard very amusing. Something showing a list of all of the redefined keys (even with a print option) is sorely needed. Finally, to activate the menu bar you need to press the [Help] key. But to do anything with it, you use the mouse. So what about the right mouse button?

In summary if you need a professional and complete emulator for VT100 and/or Tektronix 4010/4014 this one is for you, and at \$80 it is quite a bargain. An entire ST with this program easily outperforms most any commercial product in \$0-\$2000 range. If your interests require lots of ASCII to ATASCII, Email and not much else you may want to think twice before buying ANSIGRAF. If you need a 4100 series Tektronix emulator you better wait. GRAFIKON says it is coming along with the VT240 series. I am ready What about the poor 4027?

But it is finally nice to see a piece of software which can set a standard of quality for any other piece like it in the microcomputer-terminal world.

COMING - NOVEMBER 3
The Second Annual

ATARIFEST - '86

Fairfax High School
Fairfax, Virginia

AnsiGraf

*An Ansi/Graphics Terminal Emulator
for the Atari 520ST*

- Ansi x3.64 terminal emulation
- VT100 submode
- Tektronix 4014 graphics emulation

AnsiGraf uses the GEM interface with menus and dialog boxes to set and save terminal parameters. Supports separate text and graphics screens, optionally viewable concurrently, multiple text pages, Xmodem upload/download, text/graphics to printer or save to disk, programmable function keys. Price: \$79.95

Grafikon, Ltd.
Attn: R. Kulkarni or G. Fekete
P.O. Box 446
College Park, Md. 20740
Phone: (301) 937 - 3394

=====

CURRENT NOTES ST LIBRARY

=====

Order disks from CURRENT NOTES, 122 N. Johnson Rd., Sterling, VA 22170. All disks are \$4. Add \$1 for postage and handling for every 6 disks ordered. New ST Clubs: Feel free to draw on the CURRENT NOTES Library to build your own ST disk library. NOTE: CURRENT NOTES library disks are also available at NOVATARI, AURA, and NCAUG meetings as well as at ACA, L&Y, and Computer Service Land.

- #1: MONOCHROME SLIDE SHOW No. 1
- #4: ST TERMINAL PROGRAMS
- #7: GRAPHICS DEMO PROGRAMS
- #8: SAMPLE "C" PROGRAMS
- #9: SAMPLE LOGO PROGRAMS
- #10: MIDI DEMO SONGS
- #11: RAMDISKS & ONE MEG DOCS
- #12: DOODLE WITH C SOURCE CODE
- #14: ATARI'S NEOCHROME PAINT PROGRAM
- #15: ATARI'S ST WRITER, Version 1.5
- #18: ST UTILITY PROGRAMS NO. 1
- #19: XLISP - object oriented language
- #20: COLOR/MONO SLIDE SHOW
- #21: ST GAME DISK No. 1
- #22: SAMPLE BASIC PROGRAMS
- #23: INSOFTE MAGAZINE, JAN. 1986
- #25: DEGAS UTILITY DISK
- #27: dBMAN DEMO DISK
- #28: dBMAN TUTORIAL and MAILING LIST
- #29: MICROEMACS
- #30: UTILITY DISK #2
- #31: PASCAL & MODULA-2
- #32: SOUND AND GRAPHICS DEMOS
- #33: SAMPLE C PROGRAMS NO. 2
- #34: MUSIC ON YOUR ST
- #35: ATARI ST DEMO DISK
- #36: DESK ACCESSORIES
- #37: GAME DISK NO. 2
- #38: InSoft Magazine, JUNE 1986
- #39: ARCADE DEMOS
- #40: TINY COLOR SLIDES NO. 1
- #41: TINY COLOR SLIDES NO. 2
- #42: TINY COLOR SLIDES NO. 3
- #43: TERMINAL PROGRAMS NO. 2
- #44: ZOOMRACKS DEMO DISK
- #45: ATARI USER GROUP DIRECTORY
- #46: GEM QUESTION & ANSWER BULLETIN
- #47: INSOFTE MAGAZINE, AUGUST 1986
- #48: TINY MONOCHROME SLIDES NO. 1
- #49: SAMPLE PASCAL PROGRAMS NO. 1. 46 files including 34 different PASCAL routines and docs from OSS BBS
- #50: GRAPHICS DEMOS NO. 3. Includes 7 demo screens from SILENT SERVICE, great graphics demos from DUNGEON MASTER, and the famous bouncing FUJI symbol
- #51: TINY COLOR SLIDES NO. 4. 29 pictures (ALARM, AT810, BACK, BOBEVANS, BROOKE, DEC, DINER, DRWHOBOX, ENTERPRI, ESCHER, FADER, FLIGHT, FLOPPY, GALILEO, HALLEY, K9, MAXELL, MORGAN, MOTHERST, MTTAM, NEWSCAST, RELHEAT, ROBOT, ROBOTTV, ROMULAN, SCICOVER, SHUT747, ST1042, TOP). Includes TINYSTUFF and TINYVIEW
- #52: TINY COLOR SLIDES NO. 5. 21 pictures (3DVIEW, AAFALL, AAFLAG, AATINSECT, ATRPORT2, ALIEN, BOY, BUGSBULL, BULLSEYE, CHAOS, CHROME, FAUCET, FONTS, GIRL, GIRL2, HOUSE, JOKEY, MAP431, SCICOVER, STARTREK, URANUS). Includes TINYSTUFF and TINYVIEW
- #53: ATARI ST FORTH-83 MODEL. Written by Laxen & Perry, Includes FORTH language, editor, assembler, decompiler and Atari xbios functions

#54: MONOCHROME PUZZLE. Puzzlepuzzle Shareware #1 by TommySoftware. A kind of labyrinth in which you move forward by completing each of several puzzles. Excellent entertainment on your monochrome system

#55: LEWIS123 DEMO DISK. A covalent bond sketcher by Stephen Menatek. The 1st spreadsheet for chemists or anyone else who might deal with covalent bonds. MONOCHROME ONLY

#56: EASY DRAW DEMO DISK. All the features of the Easy Draw program except the ability to SAVE or PRINT to disk. Give it a try to see what object-oriented drawing is like

#57: ST ONE WRITE DEMO DISK. Take a guided tour of ST One Write Cash Disbursements Journal by entering up to 5 transactions for each month

#58: VIP PROFESSIONAL DEMO DISK. Learn about the world of spreadsheets in general, get info about VIP and LITE, get specific info about macros and database features or go into the Universe of Drew, an adventure tutorial for VIP. You can also sample some of the features of VIP (However, SAVE, MOVE, PRINT, INSERT/DELETE ROW/COLUMN are disabled.)

#59: VIP TEMPLATES. 20 VIP templates, some simple, some quite sophisticated: ACPAY, ACREC, BLACKBK, CKBKBL, DISPURSE, FEDTAX85, LEDGER, LOTUSINV, MAGEE, MENU, MISTOX, PAYROLL, SPI, SPI2, TRYME, Z, ZLIFE, ZRELEASE, STARTER

#60: MUSIC STUDIO SONGS. Do you have the Music Studio? Here are some 50 songs for your musical enjoyment

#61: PRINTER DRIVERS. A variety of printer driver files for First Word, ST Writer (Version 1, and 1.5), and Degas

#62: HACK. A dungeons and dragons like game where you (the adventurer) descend into the depths of the dungeon in search of the Amulet of Yendor

#63: UTILITY DISK NO. 3. Word processor desk accessory, floppy disk indexer, newer faster file squizzer/unsquizzer, picture conversion and compression utilities, ramdisk copy program, more ..

#64: DOLL ANIMATION DEMO. Fantastic spinning dolls demo. Requires 512K, color only, 4 1/2 minutes to load -- this is a BIG file)

#65: TINY COLOR SLIDES NO. 6 Latest additions to the growing library of Atari artwork.

#66: GLOBE DEMO DISK. Demo of spinning world globe plus a number of miscellaneous graphic demo programs. Color only

#67: BALL/BIRD DEMO DISK. Fantastic new demo of ball bouncing on a mirror with multiple light sources and shadows plus the flying bird demo

#68: CAD 3D PICTURES. A dozen or so picture files for use with Tom Hudson's CAD 3D Program

#69: GRAPHIC ARTIST DEMO - PART 1 Demo disk of the powerful CAD package, The Graphic Artist. Includes long-running demo plus all features except writing to disk and printing. Requires #70 below

#70: GRAPHIC ARTIST DEMO - PART 2. Second part of Graphic Artist demo disk

SUPER SUPRADRIVE: Hard Driving Is Easy

Reviewed by Frank F. Sommers

With one red eye and one green one, a half-inch higher and an inch and a half longer than the ST floppy drive, the big difference with this little gray box is 20 million bytes of program capacity versus 1/3 or 3/4 of a meg in your floppy. The green eye lights with a flick of the on switch and a dozen seconds later, the Supra hard drive has whirled up to full speed and is ready for duty. The other advantage over your 3.5 " drive is merely that all your programs are already inside. All 20 megabytes of them. And every time, yes, every time you turn on the green eye.

Depending on how you decide to divide up your 20 meg of byte wealth - in one, two, three, or four piles - the only difference you will discern on your desk top is that the new drive icons are labeled "Hard Drive" vs "Floppy". What will surprise and please the first time user, as it did me, is the speed with which your file is read and loaded to the screen. About 300 to 500 % faster.

Would that I could report that I took my first hard drive ever out of the box, plugged it in and fifteen minutes later was playing with several meg of disks that I had loaded in to the already configured drive. Nope. I could have. But the chap who delivered the drive to me had left the power cord behind. For the next 24-hours, and quite honestly, throughout much of the night I fantasized about my first hard drive, how I would divide up my drive, what I would load into it, what "root directories" and sub-directories I would set up. At one point my mind was whirring like the drive eventually would, with visions of folders within folders within folders. Then the cord arrived.

One cable into the back of the ST, in the hard drive port and back into the Supra and one cable to power up. That's the physical part of the set up. The documentation is not too overwhelming. Three pages tell you about the variations you have on partitioning the drive into one or as many as four separate drives, noting that it will take six minutes to format it. But if you wish to accept the factories two drive default formatting, you skip to instructions on "Using the SupraDrive" - all of two pages long, and ample indeed. In essence, create a boot disk (copy the boot file to a disk and put it in an Auto Folder), copying files is identical to doing it with normal drives, and making regular backup copies is desirable. That's it. That's all, and your off and doing it.

And what about the "doing it"? Your biggest problem consists of the combined joy and mild consternation about how you want to store your files on the disk. The documentation notes that the GEM desk top can support a maximum of 400, within all the open directory windows. That might be a bit crowded, you decide, what with four drive icons and a trash can also floating around. So the

answer is sub-directories or folders inside folders. You elect to take all of your word processing programs and files of varying stripes and load them in first. Once that is done you find you have a main folder on the first screen, three folders on the second screen, 26 folders on the next, and so on. What then is involved in calling up a file entitled, "Supradrv.rev", which is the review you are now writing, from the SupraDrive. Simple. You type into the load line of ST WRITER 1.07, "C:\WPSFILES.PRG\REVIEWS\MONTHLY.SEP\SUPRADRV.REV", and 2 seconds later, there's your review. Where did it come from? From C:, which is your hard drive, and a folder within a folder within a folder: from WordProcessorFiles.Programs (WPSFILES.PRG), from the folder inside it for reviews you have stored in it, and finally from the Monthly folder for September reviews you have stored inside that one. Describing it makes it appear doubly more complicated than it is. True, that often you must search through the windows to fix the abbreviations for the folders in your mind, but the sheer pleasure of turning on your machine, morning, noon or night and hearing that gurgle, that sounds like a two-string ukulele playing underwater, as the file loads instantly, is ample compensation.

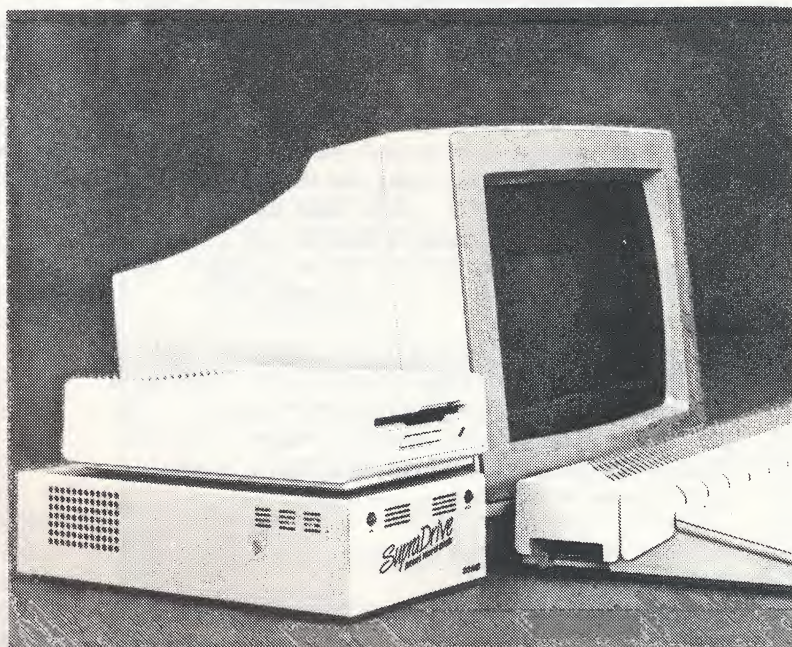
There are glitches that you may devise for yourself. The drive, itself, appears sound, solid, and glitch free. Early on, I outwitted myself, by loading a file that jumped onto the screen as a desk accessory, i.e. instead of a .prg extender it used a .acc one. It seemed ideal to me to have it be the first thing that the hard drive would toss up onto the screen, and if I didn't wish to use it, I could click off and go on to other files. So there I was smiling at my beautiful LEADER BOARD, a few seconds after turning on my drive, and having watched Cornerman pop up, followed by Calendar and Thunder I, all as accessories. Beautiful, or so it seemed. I tried to click off Leader Board. I tried to CTRL X,C and rid the screen of LEADER BOARD. I then slowly slipped into a deep depression. If there was no way to rid the screen of LEADER BOARD, there was no way to access the drive and change ye ole extender to .prg or even to delete the program. There was no way. After an hour or so, and several calls, I faced reality, as my President urges us all to do, and zeroed out my drive and all the programs on it. Yes, I zeroed out the SupraDrive and started all over, to build my folders within folders, within folders..... within folders.....

Now it sits there, loaded. It waits for me to come to it, and turn on its green eye. Once done, I wait until the gurgles stop, telling me it is up to speed (a slow count to ten), and I turn on the ST. Then the Cecile B. de Mille extravaganza starts. Accessories float up, announce themselves and disappear into desktop, icons appear like toy soldiers all over the screen, and

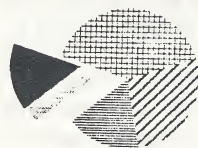
carefully positioned and saved windows slide neatly into place, and finally their directories tab into position, one after the other. Gives you an instant smile and makes you warm all over just watching it.

Problems? Other than deciding how to partition it, your executive choice, and wondering if you're better off with two extra drives, three or four, none of consequence in almost a month of constant daily use. Occasionally, when it turns on, the red busy light will come on and stay on, instead of blinking which indicates loading. The drive makes no attempt to get up to speed. Turning your ST on and off and then turning the drive off and on again starts it humming. The drive itself runs warm, and on 95 degree days, its quite warm, which is normal for such drives but causes you to wonder how the little fellows inside do over the long haul.

Final judgement? Get one, now. Beg, borrow, consider - but don't actually steal -, but get one. They're great!

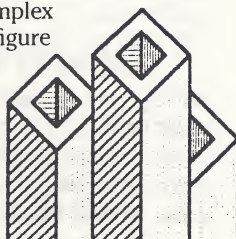


EASY-DRAW[®] IT'S A TOOL, NOT A TOY.



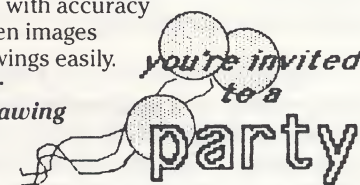
There is a difference between paint and draw programs. Paint programs are recreational packages that allow freeform painting on a dot-by-dot basis. With each new stroke you obliterate everything you cover. And erasing permanently removes everything you've created.

An object-oriented drawing program like Easy-Draw is a versatile, powerful tool you use to create business graphics, presentation materials, line drawings complex illustrations on a figure-by-figure basis. It lets you: lay down solid or transparent figures to build



composite drawings • size, move and manipulate objects individually and collectively • use a grid system for controlled, precise scale drawings • produce print-outs with accuracy exceeding your screen images • create custom drawings easily.

Ask your dealer for Easy-Draw, the drawing program for professionals.



easy-draw

MIGRAPH[™]
720 S. 333rd St., Suite 201
Federal Way, WA 98003
(206) 838-4677



Easy-Draw is a registered trademark and Migraph is a trademark of Migraph, Inc.



Orthographic

Conical

M A P S A N D L E G E N D S : T h e C a r t o g r a p h e r

Flamsteed

Reviewed by Bill Moes

Mercator



More than 4000 years ago they were on clay tablets. Before that, perhaps painted over the walls of caves or scratched on animal bones. Today the Atari ST makes creating maps a bit easier. With "Maps and Legends (M&L)" you'll have the means to develop maps of your own little corner of the world or of the world itself. No clay ... no berry juice ... no bones about it.

Written by Harry Koons and David Chenette, this \$34.95 Antic Software release simplifies the large scale map-drawing process just about as much as possible. The GEM-based program offers a reasonable number of options through its drop-down menus and supports all three graphics resolutions.

THE CHOICES

Mapmaking is often described as working toward a compromise. Trying to make our round home into a flat paper or screen will obviously create distortions. Because of this, various types of maps -- map projections -- have been developed and each has a particular strength or use.

In M&L, you'll select from five available projections for area maps: azimuthal equidistant, conical, cylindrical, orthographic, and perspective. To have the map cover only the area of your interest, you'll be asked to input data for latitude, longitude, and in most cases, one or two other parameters.

World maps are available in six projections: Flamsteed, Foucault, Mercator, Mollweide, polyconic, and Werner. For these, the only option is setting the center longitude. Defaults are provided for all choices in any projection.

The maps are drawn quickly. World maps take 30 to 45 seconds; area maps from about 20 to 75 seconds, depending on the complexity of the math involved. The inclusion of U.S. state boundaries and the graticule (grid lines) is optional.

By adjusting the size of the window and the screen slider bars, it's possible to have these maps drawn in a variety of sizes and to place a number of maps on the same screen. The maps may be drawn in any color supported by the desktop and in one of three pen sizes. A colorful map is often created by drawing the map three times, using a different color and the next smaller pen size for each.

WHAT NEXT?

After the map is drawn, there are several useful options available. You may choose to use "Locate" and,

depending on the type of map, either find the latitude and longitude of any point on your map or the distance and heading from the map's center.

A powerful addition with version 2.0 of M&L is the "Overlay." With this option and some effort, you may add any additional map information which can be expressed in latitude and longitude. This may include single state or country boundaries, highways and cities, wind or ocean currents, county lines, and even satellite orbits. Or create, if you're brave, a new world.

Using dot-to-dot number sets and accuracy to tenths of a degree, the data for these "Overlays" may be entered on a word processor and then converted into the correct file format with a provided program. These files may then be used with any map projection. It will generally take some time and an atlas, but the result will be uniquely yours.

The outline maps drawn by M&L include almost no political boundaries, although Antic has expressed an interest in having these and other map "Overlay" files available. So, perhaps some time in the future

The disk-based documentation prints out to 34 pages and is also available on-line in medium or high resolution. It is clear. It is helpful. It includes brief technical details on mapmaking, although certainly additional research will be necessary for any real understanding. The disk is not copy-protected. And the M&L source code is available (\$250).

TO MARK IT, TO MARK IT

With this program, text may be added in three sizes. A desk accessory font-loader is available to change the style, although the smallest size will not be altered with a different font. The only graphics tools provided are the three sizes for pen/eraser and a fill. The fill may be solid or one of seven patterns. Files are saved in DEGAS format; a converter to NEO is on the disk. Clearly M&L was not designed as a graphics workhorse, so most will use one of the other programs to do any necessary graphics work, including the addition of text.

And the faults in M&L? It's possible to lose the cursor when doing repeated fills. One pattern over another may or may not work and if it does, it may wear out your patience watching that second pattern as it fills sections of the first evveerrrrr soooo sloowwilly. Adding text is not always the simple and error-free experience it can be with DEGAS. It's possible to go to crash 'n lock if you attempt to enter unexpected data when first designing the map. And the only way to print a map within M&L is by the < ALT > and < HELP > method,

printing the whole desktop including menu bars.

Quite honestly, these faults are not San Andreas. Use M&L to create your maps. After it has made its magic, go to a dedicated paint program for the graphic additions or printouts. With those other programs, you could easily create fills and brushes to add vegetation, landforms, or other helpful and imaginative information to your map.

SUMMARY

Colorful, detailed, and useful maps are easily possible with M&L and Antic has made the effort to bring in this strength at a bargain price. If a comprehensive set of "Overlay" files is offered, even greater utility will be unleashed.

As it is, graphics users, educators, travellers, and (yes!) dreamers will find that "Maps and Legends" offers a powerful path to quickly cross this best of all probable worlds. And the only passport needed is an ST.



Perspective



Azimuthal
Equidistant



Foucault



Cylindrical



Werner

ST—COMM™

Communication Software For The Atari ST

ST—COMM is packed with the features you've been waiting for and it's not going to cost you an arm or a leg to have them. Features such as:

- 10 programmable function (macro) keys
- Full VT-52 emulation including cursor keys
- XMODEM and XMODEM/CRC protocols
- Automatic dialing using number library
- Automatic redialing using Hayes or compatible modem
- Full or Half duplex modes
- Works with any modem

ORDER TODAY! Send \$29.95 (check, M.O., MC, Visa) plus \$4.50 shipping to:

JERRY HAIGWOOD SOFTWARE

3151 Mattos Avenue
San Jose, CA 95132
(408) 923-4050 7AM - 6PM PST

CA residents add \$2.10 sales tax
Dealer Inquiries Invited

ATTN:
PASCAL
USERS

MODULA-2

the successor to Pascal

FOR
ATARI
520ST

- FULL interface to GEM DOS, AES and VDI
- Smart linker for greatly reduced code size
- Full Screen Editor linked to compiler locates and identifies all errors
- True native code implementation (Not UCSD p-Code or M-code)
- Sophisticated multi-pass compiler allows forward references and code optimization
- Desktop automates Edit/Compile/Link cycle
- FileSystem, RealInOut, LongInOut, InOut, Strings, Storage, Terminal
- Streams, MathLib0 and all standard modules
- Directory search paths
- Supports real numbers and transcendental functions ie. sin, cos, tan, arctan, exp, ln, log, power, sqrt
- 3d graphics and multi-tasking demos
- CODE statement for assembly code
- 370-page manual
- Installs on Hard disk and RAM disk
- No royalties or copy protection
- Phone and network customer support provided

Pascal and Modula-2 source code are nearly identical. Modula-2 should be thought of as an enhanced superset of Pascal. Professor Niklaus Wirth (the creator of Pascal) designed Modula-2 to replace Pascal.

Added features of Modula-2 not found in Pascal

- CASE has an ELSE and may contain subranges
- Programs may be broken up into Modules for separate compilation
- Machine level interface
 - Bit-wise operators
 - Direct port and Memory access
 - Absolute addressing
 - Interrupt structure
- Dynamic strings that may be any size
- Multi-tasking is supported
- Procedure variables
- Module version control
- Programmer definable scope of objects
- Open array parameters (VAR r: ARRAY OF REALS;)
- Elegant type transfer functions

Ramdisk Benchmarks (secs)	Compile	Link	Execute	Optimized Size
Sieve of Eratosthenes:	6.2	4.3	3.5	2600 bytes
Float	6.4	4.8	8.3	4844 bytes
Calc	5.5	4.2	3.3	2878 bytes
Null program	5.1	3.2	—	2370 bytes

MODULE Sieve; CONST TYPE VAR BEGIN FOR Iter:= 1 TO 10 DO Count:= 0; Flags:= FlagSet(); (* empty set *) FOR i:= 0 TO Size DO IF (i IN Flags) THEN Prime:= (i * 2) + 3; k:= i + Prime; WHILE k <= Size DO INCL (Flags, k); k:= k + Prime; END; Count:= Count + 1; END; END; END Sieve.	MODULE Float; FROM MathLib0 IMPORT sin, ln, exp, sqrt, arctan; VAR x,y: REAL; i: CARDINAL; BEGIN (*\$S-\$A-\$S-\$*) x:= 1.0; FOR i:= 1 TO 1000 DO y:= sin (x); y:= ln (x); y:= exp (x); y:= sqrt (x); y:= arctan (x); x:= x + 0.01; END; END float. MODULE calc; VAR a,b,c: REAL; n, i: CARDINAL; BEGIN (*\$T-\$A-\$S-\$*) n:= 5000; a:= 2.71828; b:= 3.14159; c:= 1.0; FOR i:= 1 TO n DO c:= c*a; c:= c*b; c:= c/a; c:= c/b; END; END calc.
--	---

Product History

The TDI Modula-2 compiler has been running on the Pinnacle supermicro (Aug. '84), Amiga (Jan. '86) and will soon appear on the Macintosh and UNIX in the 4th Qtr. '86.

Regular Version \$79.95 Developer's Version \$149.95 Commercial Version \$299.95
The regular version contains all the features listed above. The developer's version supplies an extra diskette containing a symbol file decoder - link and load file disassemblers - a source file cross referencer - symbolic debugger - high level Windows library Module - Ramdisk and Print Spooler source files - Resource Compiler. The commercial version contains all of the Atari module source files.

Other Modula-2 Products

Kermit	- Contains full source plus \$15 connect time to Compuserve.	\$29.95
Examples	- Many Modula-2 example programs to show advanced programming techniques	\$24.95
GRID	- Sophisticated multi-key file access method with over 30 procedures to access variable length records.	\$49.95



SOFTWARE, INC.

10410 Markison Road ■ Dallas, Texas 75238 ■ (214) 340-4942
Telex: 888442 Compuserve Number: 75026.1331

SOFTWARES BASIC: Compiler for the 520 ST*Reviewed by Stephen Eitelman*Introduction

Softworks Limited in Chicago is now marketing a new Basic compiler for the Atari 520ST. A compiler translates an entire program into machine language before executing it, whereas an interpreter such as ST Basic translates each command into machine language, then executes it before going on to the next command. Routines with much repetition such as lengthy FOR-NEXT loops can be speeded up considerably through the use of a compiler. Or they should be if the compiler is well done. More on this later.

The manual for this compiler is mercifully short - 89 pages of 6x6 paper written on both sides. At a quick glance, it has a complete table of contents and is well-indexed.

The compiler proves easy to use and comes complete on one single sided disk. Compilation is fast and consists of two steps: compilation (generation of machine code) and linking the runtime module (coupling library functions, relocating the finished code, etc.). After the runtime module is linked, the program automatically executes.

An editor is supplied with which most users will be familiar. It is 1ST Word, version 1.06. It is automatically coupled to any program that ends with a .BAS extension. When such a program is selected from the desktop, 1ST Word is loaded first and then the selected program is read in. This feature only functions properly if the desk accessories are not modified.

The supplied disk is not copy protected, so an archival copy can be easily made and the disk contains a good assortment of demonstration programs that illustrate the powerful features of this compiler. In particular, the graphic and sound demos are quite impressive.

The advertised price is \$79.00 retail.

DIALECT

This particular version of Basic has a very powerful set of commands. It includes a wide range of flexible string manipulation commands and a surprisingly complete set of math routines, although there are no matrix or complex math (square root of -1 sort of thing) commands. Softworks Basic also includes what are called Mapped variables. These variables can be subsets of other variables, such as would be found in name, address, social security number, etc. This allows relatively complicated data structures to be handled either as a single entity or by their component parts. Additional features permit calling machine language routines with

the XCALL command, chaining files together, and VDI/AES calls. VDI and AES calls permit the graphics and sound capabilities of the ST to be utilized, although some substantial effort must be expended to learn the use of the functions. Output formatting is very flexible with the PRINT USING statement and about 10 associated control characters. Programs can be written with or without line numbers. There is considerable file manipulation capability, including treating the various ports on the ST as if they were sequential files. Error trapping is provided, so that errors can be made to cause the program to branch to an error message without crashing.

SPEED

Now for some of the bad news. Once again, we have a compiler that is slow, slow, slow for math applications! It runs such programs more than four times slower than the ST Basic interpreter, which I find just plain unacceptable (and incomprehensible!). The table tells it all. The Philon compiler reviewed in the July/August issue is included for comparison.

Execution times in Minutes:seconds

Test:	A	B	C	D	E
ST Basic	0:51	1:09	5:04	1:45	0:26
Soft-Works Basic	3:56	0:24	0:69	0:37	0:09
Philon Basic	1:39	2:04	2:25	0:36	0:05

Test Description:

- A: $1 \leq I \leq 10000$, $\cos(I)^2$
 B: Generate 1000 random strings
 C: Sort 1000 strings
 D: Print 1000 sorted strings
 E: Examine 1 - 2047 for prime numbers using Sieve (One iteration)

The good news is that Softworks Basic handles string manipulations very efficiently - between three and four times faster than ST Basic (the interpreter), and two to five times faster than the Philon Fast/Basic-M compiler.

There also appears to be a lesson to be learned from the Sieve of Eratosthenes (called the Sieve from here on). The Sieve consists of nested FOR-NEXT loops, clever selection of start and end points, step size, and a lot of simple addition to examine a list of consecutive numbers for prime numbers. These results suggest that

complicated functions are a lot harder to write efficient compiler code for than simple ones. On the other hand, most real-world math modelling requires more than just simple addition, so perhaps the Sieve is not all that representative of what is needed for a numerical benchmark.

At about this point, I became worried that maybe my "cos(1) squared" test contained some peculiar subtlety that caused all compilers to have the draggies. So I tried it on an IBM PC. The IBM interpreter ran the test in five minutes and two seconds in double precision. When compiled, it ran in 54 seconds, roughly a factor of six improvement. So expecting a decent speed up for compiled "higher" math functions is not unreasonable. It can be done. If Big Blue can do it, others can.

DRAWBACKS

The following drawbacks were noted during the review:

- The instruction manual lacks adequate examples and there is no discussion of the sample programs on the disk.

- The runtime module does not allow machine executable code to be saved to disk. Instead, the runtime module is coupled to the object code and is automatically run every time before the program is executed. If the desk accessories are changed, the runtime module will not execute automatically, requiring a separate command to load it, then specify the program to be linked. This is time consuming and potentially confusing to a user of the program.

- There is no interpreter, making debugging very difficult in a long program. It will compile only about 70 commands from ST Basic (out of 166); there is no provision for clearing the screen, compiling basic graphics or compiling sound commands. However, graphics and sound can be accessed from the VDI and AES commands, but these require some considerable effort to master. Games written in ST Basic will need a lot of modification to compile.

- There are only eleven digits of numerical precision, instead of the more common 14-16 digits. Also, there is no true integer capability. Everything is done in floating point, slowing down programs that could be speeded up by integer declarations.

- The order of execution of statements is independent of the line numbers. So if you decide to add a line 45 and it follows line 50 in the file, it will be executed in that order. A minor point perhaps, but irritating.

- Error messages that occur during either compiling or linking (runtime module execution) are flashed on the screen for only a fraction of a second and then the program defaults back to TOS - not enough time to read the error message. At first this is just an irritation,

but eventually becomes a real problem. I found myself compiling a program numerous times just to try to read the error message printed by the compiler. There are compiler directives that permit the generation of an error listing to disk, but for simple programs, this is more trouble than it is worth.

- Finally, as discussed above, the compiler results in very slow code for math intensive applications. Speeding up math modelling programs is one of the major motivations for buying a compiler.

CONCLUSIONS

Softworks Basic has the potential to be a very excellent compiler - a comprehensive vocabulary, fast compilation time and ease of use. The various drawbacks, however, make the product in its present form poorly suited to many of the major reasons for buying a compiler. There is still no GOOD Basic compiler for the 520ST that I have seen - that is, one that is at least up to the standards established by the IBM PC compiler. Next month, the search continues with a review of the Logical Design Works compiler, which at this point looks very promising.

Regent

REGENT BASE

A FULL FUNCTION
RELATIONAL DATABASE

Regent Base's procedural language
make it a natural for handling any of your
small business needs. Modules are
available for Invoicing, Accounts
Receivable, Checkbook Balancing,
General Ledger, etc.

Regent Base is a relational database
written specifically for the Atari ST. Don't
settle for simple clones of IBM products.
Regent Base is easy to use and state-of-
the-art!

REGENT SOFTWARE

7131 Owensmouth, Suite 45A
Canoga Park, CA 91303
(818) 883-0951

ATARI ST ■ ■ ■ ■ | |

Black Patch

ST HARDWARE

1040 ST MONO.....	CALL
1040 ST RGB.....	CALL
520 ST MONO.....	CALL
520 ST RGB.....	CALL
SF354 SS/DD.....	CALL
SF314 DS/DD.....	CALL
SM124 MONOCHROME.....	CALL
SC1224 RGB.....	CALL
SHD 204 DRIVE.....	CALL
SMM804 PRINTER.....	CALL
ST PRINTER CABLES.....	12.00
ST MODEM CABLES.....	12.00

PRINTERS

ATARI SMM 804.....	CALL
ATARI XMM 801.....	CALL
PANASONIC 1080.....	198.00
1091.....	229.00
1092.....	309.00
1592.....	CALL
3131.....	259.00
3151.....	CALL
STAR MICRONICS	
NX-10.....	234.00
NL-10.....	CALL
EPSON LX-80.....	CALL
FX-85.....	CALL
FX-286.....	CALL
LQ-800.....	CALL
LQ-1000.....	CALL

MODEMS

AVATEX 1200.....	78.99
AVATEX 1200HC.....	128.99
QMI 1200ST.....	129.00
ATARI XM301.....	35.75
ATARI 1200.....	CALL
SUPRA 300AT.....	33.99
HABA 1200SZ.....	109.00

ST SOFTWARE

ACTIVISION

BORROWED TIME.....	32.50
HACKER.....	28.99
HACKER 2.....	31.75
MINDSHADOW.....	32.50
LITTLE COMPUTER PEOPLE.....	32.50
PAINTWORKS.....	43.99
MUSIC STUDIO.....	37.99
CHAMP. BASEBALL.....	CALL
PORTAL.....	CALL
BASKETBALL.....	CALL
GAMEMAKER.....	CALL
PEBBLE BEACH.....	CALL

ACCESS

LEADER BOARD.....	25.99
-------------------	-------

ACCOLADE

MEAN 18.....	26.99
--------------	-------

ATARI

HOME PLANET.....	23.75
JOUST.....	23.75
STAR RAIDERS.....	23.75
DBMAN.....	CALL
CP/M EMULATOR.....	CALL
IBM EMULATOR.....	CALL

ACADEMY

TYPING TUTOR.....	24.50
-------------------	-------

ANTIC

A-CALC.....	39.99
A-SEKA.....	23.99
A-RAM.....	14.50
CAD 3-D.....	33.99
FLASH.....	27.50
GST C.....	59.99
GST ASSM.....	53.50
EXPERT OPINION.....	66.50

BATTERIES INCLUDED

DEGAS.....	25.99
BTS: THE SPREADSHEET.....	CALL
THE CONSULTANT.....	CALL
PORTFOLIO.....	CALL
I'S TALK.....	49.50
PAPERCLIP ELITE.....	CALL
DEGAS ELITE.....	CALL
I'S TIME.....	CALL
HOMEPAK.....	CALL
THUNDER.....	25.99
TIMELINK.....	32.50
B/GRAPH ELITE.....	CALL

CENTRAL POINT

COPY II ST.....	25.99
-----------------	-------

EPYX

ROGUE.....	25.99
WORLD GAMES.....	25.99
WINTER GAMES.....	25.99
CHAMP. WRESTLE.....	25.99
TEMPLE OF APSHAI.....	25.99

FIREBIRD

THE PAWN.....	28.99
STAR GLIDER.....	28.99
GOLDEN PATH.....	28.99

BECKMEYER

MICRO C SHELL.....	34.99
MICRO RTX.....	47.99
MTC SHELL.....	54.75

MICHTRON

BBS.....	33.75
M-DISK.....	26.75
SOFTSPOOL.....	26.75
ANIMATOR.....	27.50
TIME BANDITS.....	26.75
MAJOR MOTION.....	27.50
CORNERMAN.....	33.75
MIGHTY MAIL.....	33.75
GOLD RUNNER.....	27.50
DOS SHELL.....	27.50
PERSONAL MONEY.....	33.75
UTILITIES.....	CALL
BUSINESS TOOLS.....	33.75
D.F.T.....	33.75
KISSED.....	27.50
MISSION MOUSE.....	27.50

MICROPROSE

SILENT SERVICE.....	26.99
GUNSHIP.....	CALL
F-15 STRIKE.....	CALL

MI-GRAPH

EASY DRAW.....	96.99
----------------	-------

MINDSCAPE

BRATACCUS.....	31.50
----------------	-------

OMNITREND

UNIVERSE 2.....	47.99
-----------------	-------

OSS

PERSONAL PASCAL.....	47.50
PERSONAL PROLOG.....	47.50

ORIGIN SYSTEMS

ULTIMA III.....	CALL
ULTIMA IV.....	CALL

REGENT

REGENT BASE.....	66.50
WORD/SPELL.....	34.99
REGENT WORD II.....	66.50

SIERRA ON-LINE

KINGS QUEST I.....	33.75
KINGS QUEST II.....	33.75
ULTIMA II.....	39.99
BLACK CAULDRON.....	27.50
WINNIE THE POOH.....	16.99
ST ONE-WRITE.....	64.50

SSI

PHANTASIE.....	26.50
BASKETBALL.....	CALL

SUBLOGIC

FLIGHT SIMULATOR.....	CALL
JET.....	CALL

UNISON WORLD

PRINTMASTER.....	25.99
ART GALLERY 1.....	19.99
ART GALLERY 2.....	19.99

XLENT SOFTWARE

RUBBER STAMP.....	25.99
MUSIC BOX.....	31.75
TYPESETTER.....	25.99

QMI

ST TALK.....	10.50
ST-NET.....	CALL

METACOMCO

MCC PASCAL.....	73.49
LATTICE C.....	97.99
MACRO ASSEMBLER.....	54.75

TDI

USCD PASCAL.....	52.50
MODULA-2.....	52.50
MODULA-2 DEV.....	98.93

MISC.

MEGAMAX C.....	173.99
HENRY'S BASIC.....	32.99
MICROLEAGUE BASEBALL.....	CALL
FORTAN 77.....	99.95
TIMESAVER.....	34.99
ACTION PAK.....	29.99
LOGIKRON CLOCK.....	34.95
ST POOL.....	18.99
SUNDOG.....	26.99
VIP PROF.....	CALL
ZOOMRACKS.....	49.99
GRAPHIC ARTIST.....	CALL
MINDWHEEL.....	61.50
DAC ACCOUNTING.....	46.99

NO CREDIT CARD SURCHARGE ON SOFTWARE ORDERS.

Systems

We'll beat any price anywhere!

ATARI 8-BIT HARDWARE

130XE	119.94
1050	119.50
INDUS GT	179.00
ATARI 1027	84.00
65XE	87.00
XM301	35.75

ACCESSORIES/INTERFACES

US DOUBLER	45.00
RAMBO XL	26.00
R-TIME	45.00
P-R: CONNECTION	54.99
SUPRA MICROPRINT	31.00
SUPRA 1150	45.00
MICROSTUFFER	59.00
ATARI 850	105.00
MIO	CALL
XEP80	CALL

ATARI 8-BIT SOFTWARE

ACCESS

LEADER BOARD	25.99
--------------------	-------

ACCOLADE

RAID OVER MOSCOW	25.99
BEACH HEAD II	25.99
HARDBALL	22.99
FIGHT NIGHT	22.99

BRODERBUND

PRINTSHOP	27.99
P.S. LIBRARIES	16.99
PRINTSHOP COMPANION	23.75
CH. LODE RUNNER	19.99
LODE RUNNER	22.99
KARATEKA	19.99

BATTERIES INCLUDED

B/GRAPH	25.75
PAPERCLIP W/SPELL	36.50
HOMEPAK	31.99

OSS

ACTION!	48.99
BASIC XE	48.99
BASIC XL	37.75
MAC/65	48.99
OSS TOOLKIT	19.99

SUBLOGIC

FLIGHT SIMULATOR II	33.50
JET	15.50
SCENERY DISKS	CALL

EPYX

WORLD CHAMPIONSHIP KARATE	19.99
RESCUE AT FRACT	25.99
KORONIS RIFT	25.99
THE EIDOLON	25.99
SUMMER GAMES	25.99
TEMPLE OF APHSAI TRILOGY	25.99

XLENT

WORD PROC.	19.99
MEGAFONT II+	16.99
MIN. GOLF	19.99
PAGE DES.	19.99
RUBBER STAMP	19.99
TYPESETTER	22.99

MICROPROSE

CONDOR	CALL
CONFLICT IN VIETNAM	25.75
CRUSADE IN EUROPE	25.75
DECISION IN DESERT	25.75
DESTROYER ESCORT	CALL
GUNSHIP	CALL
KENNEDY APPROACH	22.99
SOLO FLIGHT	22.99
F-15 STRIKE EAGLE	22.99
SILENT SERVICE	22.99

ACTIVISION

HACKER	16.99
SPACE SHUTTLE	16.99
MINDSHADOW	16.99
GREAT AMERICAN RD RACE	16.99
GHOSTBUSTERS	16.99

FIREBIRD

CHIMERA	13.99
GOLDEN PATH	22.99
THE PAWN	28.99

ATARI

ATARIWRITER PLUS	19.99
LEARNING PHONE	19.99
SILENT BUTLER	19.99
STAR RAIDERS II	13.99

SYNAPSE

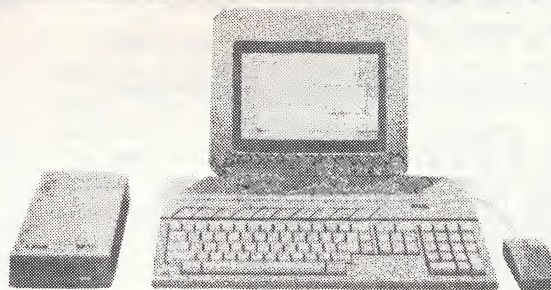
SYNFILE+	32.50
SYNCALC	32.50

ORIGIN

ULTIMA IV	41.50
-----------------	-------

SSI

USAAF	37.50
MECH BRIGADE	37.50
GETTYSBURG	38.49
GEMSTONE HEALER	25.99
FIGHTER COMMAND	38.49
PHANTASIE	25.99
BATTALION COMMANDER	25.99
BATTLE OF NORMANDY	25.99
BATTLE OF ANTIETAM	31.49
BREAKTHROUGH IN THE ARDENNES	38.49
BROADSIDES	25.99
CARRIER FORCE	38.49
COLONIAL CONQUEST	25.99
COMBAT LEADER	25.99
COMPUTER AMBUSH	38.49
FIELD OF FIRE	25.99
KAMPFGRUPPE	38.49
KNIGHTS OF THE DESERT	25.99
OBJECTIVE KURSK	25.99
OPERATION MARKET GARDEN	31.49
PANZER GENDER	25.99
REFORGER '88	38.49
SIX GUN SHOOTOUT	25.99
TIGERS IN THE SNOW	25.99
WAR IN RUSSIA	49.99
COMPUTER QB	25.99
GEMSTONE WARRIOR	22.49
IMPERIUM GALACTIUM	25.99
COSMIC BALANCE	25.99
50-MISSION CRUSH	25.99
GALACTIC ADVENTURES	38.49
QUESTRON	31.49
WIZARD'S CROWN	25.99



Black Patch Systems

Orders Only:

Call TOLL FREE 1-800-ATARI-02 or 301-987-2300 (toll call)

For technical information or order inquiries, call 301-987-0019, or write Black Patch Systems, P.O. Box 501, Arnold, MD 21012.

HOW TO ORDER: CASHIER CHECK, MONEY ORDER...NO PERSONAL CHECKS...NO C.O.D.'S...SHIPPED U.P.S....ALL PRICES AND POLICIES SUBJECT TO CHANGE WITHOUT NOTICE.

SOFTWARE: ALL PRICES INCLUDE SHIPPING. NO CREDIT CARD SURCHARGE. FREE AIR SHIPPING ON PURCHASE OF SOFTWARE OVER \$150.00.

HARDWARE: ONLY 2% CREDIT CARD SURCHARGE. SHIPPING ORDERS UNDER \$100.00 ADD \$3.00. SHIPPING ORDERS OVER \$100.00 ADD \$5.00.

INTERNATIONAL: ACTUAL FREIGHT CHARGED ON ALL ORDERS OUTSIDE THE CONTINENTAL U.S., INCLUDING A.P.O.

POLICIES: NO RETURNS WITHOUT AN AUTHORIZATION NUMBER. NO RETURNS UNLESS DEFECTIVE. ALL DEFECTIVE ITEMS WILL BE EXCHANGED...NO EXCEPTIONS.

FREE SHIPPING ON ALL SOFTWARE/FREE AIR SHIPPING ON ALL SOFTWARE OVER \$150.

M I C H T R O N ' S D O S S H E L L*Reviewed by John Barnes*

How would you like to give your ST a whole list of things to do while you go off for dinner? Tired of clicking the mouse and then waiting for the next opportunity while you know perfectly well what should happen next? Maybe you don't like the mouse at all. Certain computer snobs think that all mice are related to Mickey. I will not get into this except to say that sometimes I like the mouse and sometimes I don't. The DOS Shell, by Timothy Purves for MICHTRON, is a program that lets you tell the machine what to do by typing commands to the keyboard just like other machines that do not use fancy windowing techniques.

There are certain things the DOS Shell lets you do that you cannot do from GEM at all. Like getting your directory listing into a file, where you can look at it and work on it. For this reason I find this tool indispensable. It is not entirely bug-free, nor is it easy to learn to use. MichTron has, however, been a strong force in ST software development and one can expect a reasonably good product.

As the name "Shell" implies this program constructs an environment that surrounds GEM and translates your commands from the keyboard into commands to the ST operating system. I will give a few examples below. The prompts from the command shell are in BOLD lettering while the user's responses are in ITALIC. The form of the commands is supposed to resemble that in MS-DOS, which also bears a certain resemblance to UNIX. The industry is slowly moving toward standard names for these commands. Note that when the DOS Shell comes up the screen is clear except for the prompt.

```
=====
A>dir
Volume in Drive A is FORTRAN.DSK
Directory of *.*
COMMAND PRG      30225  11-20-1985  0:07a
SPREDCON FOR       394   8-03-1986  5:58p
DOSSHELL DOC      1370   8-03-1986  6:30p
DIR      LIS         0   8-03-1986  6:33p
1ST PRNT DOT       724  11-20-1985  0:35a
1ST PRNT PRG      37329  11-20-1985  0:36a
1ST WORD PRG      84603  11-20-1985  0:37a
1ST WORD RSC      14870  11-20-1985  0:38a
COMPILE.DIR <DIR>   8-03-1986  4:56p
    25 file(s)
A>dir/sort >dir.lis
A>dir/sort >prn:
=====
```

Explanation: The first command, "dir", gives you a straight listing of your current default directory. If you don't see 25 files in the list it is because I don't want to fill *Current Notes* with directory listings. The

information you see on the screen would be available to you from GEM if you scroll around in a window that is long enough and wide enough. The directories in GEM windows are sorted by file name, with all subdirectories (folders) listed first. Here the note <DIR> indicates that the file is a subdirectory.

In the second directory request, the output does not appear on the screen because it has been captured in a file, "dir.lis", instead. If you want to look at it, you can TYPE it or look at it with a program editor. In the third case the directory listing goes straight to the printer.

DOS SHELL COMMANDS

The DOS Shell implements about 40 commands that mimic MS-DOS commands. The main ones are:

CHDIR	CKDIR	CLS	COPY	EXIT	DATE
DEL	DIR	ERASE	FIND	MKDIR	PATH
RENAME	RMDIR	RUN	SET	TIME	TREE
TYPE	VERIFY	VOL			

Space limitations require that I say only that this list of commands permits the user to manipulate subdirectories, files, and certain OS parameters to his heart's content.

There is another group of commands that are helpful in controlling BATCH files created by the user. These commands include:

ECHO GOTO IF PAUSE REMARK SHIFT

There are a few more reserved words and symbols that provide what are known as "filters" and "redirection" of input and output. There is also full support for wild cards of the sort that Atari DOS 2.0 users are familiar with, which makes it easy to deal with files in large chunks.

EXTENSIBILITY

The command repertoire is actually almost infinitely extensible because any file name with an extension of .PRG or .BAT can be run by simply typing its filename in response to the command prompt. If XXXX.PRG is a GEM application, it is, however better to say "RUN XXXX". For example, I was able to install an EDIT command by renaming EMACS.PRG to EDIT.PRG.

BATCH FILES

Files with a .BAT extension are command procedures that the user can build to perform any set of operations

that he likes. To use a BATCH file, you must use a word processor or a program editor to create an ASCII file containing the DOS commands you want executed in the order you want them carried out. A certain amount of branching and parameter substitution is possible, but I do not yet understand these well enough. It is, however, conceivable that quite large menu programs could be written in this way. This would be useful in certain canned applications, particularly with a program like dbMAN, that is not comfortable in GEM. Rather complicated startup procedures, such as copying a whole bunch of files to a RAMDISK, can also be programmed in this way.

DOCUMENTATION

In order to use the DOS Shell you must master a 68 page guide that gives descriptions of the various commands in a rather terse manner. In some places the writer is acting as a tutor, but his patience runs out as the manual goes on until he clearly expects considerable familiarity with MS-DOS. The book could have used many more examples. There should be a few on the WAACE ST Bulletin Board by the time you read this. In other cases you will just have to experiment and see what happens. The index of the booklet points you toward the main description of the various commands, but it could have been more exhaustive. I had to use my imagination to cook up the third version of the directory command above and this should not have been necessary.

The book is, however, small enough and well enough organized so that looking things up is not too painful.

INTERNALS

The disk I got contained three files: READ.ME, COMMAND.PRG, and FORMAT.PRG. COMMAND.PRG is the guts of the DOS Shell. I copied this file to one of my system disks and double clicked it from GEM. The next thing I knew I was looking at the A> prompt. I typed EXIT and I was back in GEM. That was all there was to it.

BUGS (or are they only glitches?)

It did not take me long to get hung up. The following sequence did not work as an automatic startup file, although it did work fine when invoked after getting into the shell from GEM:

```
DATE / Solicit a new system date
TIME / Set the system clock
EXIT / Back to GEM
```

Subsequent discussion with MichTron revealed that the problem is caused by the absence of nearly half the operating system at the time the AUTO folder goes into execution (another dumb move by Atari). The best way to use the shell is to click on COMMAND.PRG

The manual misled me on the CHDIR command until I

used the following sequence to set drive D: (my Ramdisk) as the default:

```
A>D:
A>CD \PROGS\
```

I then found out that CHDIR sets your default directory on each device you use and that you must use the DEV: in response to the prompt to get to a new default device. This is not the way the same command works in UNIX.

The following example using redirection with concatenation also failed (this is a real bug):

```
TREE >dir.lis
DIR *.* >>dir.lis
```

Most Atari users know enough to keep their eyes open when they find a bug and they also know that it is just a matter of time until they will find one.

ENHANCEMENTS

There are a number of enhancements that would prove very useful in the next release of this product. The capability of overriding the TOS COPY command's propensity for changing dates on files and changing the file protection should not be hard to build in. Likewise a new PROTECT command that would set a file to Read-Only would be a big help in preventing inadvertent deletions when using wild cards. COPY should have a switch for concatenation so that one does not have to load an application to simply append one file to another.

CONCLUSION

The things that this product does for me are so important that I do not want to be without them. I expect that I can use batch files to greatly simplify my manipulations in FORTRAN program development (more on this next month) and I expect to use the ability to capture directories and disk structures on files to build a sensible file archiving scheme. These kinds of applications are serious stuff and DOS Shell is clearly a tool that the serious ST user needs. I hope that MichTron will take the trouble to clear up the bugs and enhance the product so that we will have a truly professional operating system for the ST's.

MichTron



ORDERS AND INFORMATION

(313) 334-5700



LEADER BOARD: A Pro Golf Simulation*Reviewed by Frank Sommers*

The box bearing this "goodie" depicts a golfer completing his drive, right heel raised, right arm straight, body in full pivot, form perfect, and a jagged blaze of yellow, indicating where the driver smashed into the ball. And a unanimous smash hit it is, this LEADER BOARD game. Bruce and Roger Carver, the original authors, and the poet laureate for the ST version, Brent Erickson are to be heralded.

The game came to me near mid-night of an evening, couriered in by a friend, who dashed away leaving the advice, "Try all stops if it doesn't load; we just had one case when it wouldn't." Wouldn't load? A program either does or it doesn't. Usually. But LEADER BOARD like all beauties has one small blemish in the form of the tip of a joy stick which acts as a "key" and must be inserted into the 2nd north dakota joy stick port. This variation, while it permits backing up the disk, shakes your normal confidence that all is in order, i.e. is it the or the program which causes the problem? And load it wouldn't. For two hours I tortured myself, pulling out "all stops", including disconnecting the 2nd drive, the modem, the printer, while working the keys like a demented Rubenstein.

The stellar introductory screen loaded fine, with its message to insert the "key". A click on the mouse and the giant "leader board" with its brightly colored scenic backdrop slid into view, asking for the number of players. And then it froze! The keyboard was ever dead. What intensified the pain was the demo, which periodically kicked in and fried your eyeballs with its graphics. A small figure in brown and yellow golfing togs with a fairway of sharpest detail stretching before him, Japanese-like dwarf trees lining the pathway, clouds, a horizon of snow capped mountains with a city skyscraper-ing up on the right. Wow! And then "Swoosh!", the man whacks out a drive of 270-odd yards, not only the ball visible throughout its flight, but its shadow racing along the ground as it sails forward. A hit, a bounce or two, and the scene shifts, in but a moment, to where your ball lies, with the pin visible before you. The exact yardage to the screen is posted on the right of the screen where the club selection indicator rests. (Also positioned there: No. of the hole, par, which player is up, club he's using, and the power and snap panel.) Another whack, then a green, a perfect curling put, and the sound of the ball rattling into the cup, before you switch to the leader board and your score thus far. And then the demo is over and back to the lock-up. This unparalleled combination of sound and graphics with a 4th generation golf game before you and no entry beyond the demo!

The next day, several calls, with John of L&Y diagnosing the problem as residing in the keyboard, and

Chris at ACA miraculously coming up with a replacement board and finally I was there loading it, and typing in my name, and return, and nothing. Nothing? Then I remembered, a wise friend, our Scuttle Bits editor, Bob Kelley, had mentioned something about his problem, typing his name in caps versus lower case, before he was able to settle down to a brief 5 hours of uninterrupted, addicted play. (And he's "never a game player", though he hasn't taken the President's offer of a lie detector test yet). So it was. By ending your name in lower case, the screen flashes to a selection screen for level of play, and you're off and into one of the best, if not the best golf simulation available for the ST (MEAN 18, another new golf game has just appeared, and is to be reviewed next month.)

After selecting which of the 4 courses you wish to play, and the level, Novice, Amature or Pro, you tee off. At the Novice level, the knack of clicking the right mouse button to commence the back swing, then releasing it exactly at the moment of greatest arc, and finally stabbing it again, at the moment you wish to snap your wrists (or his) and the ball is launched. A maximum drive is 275 yards and it means your backswing was perfect and your coiled-spring wrist release as good; not too soon (or you hook) and not too late (or you slice). The next shot, a 119-yard nine iron is so true to the pin that it hits it and you see and hear it kick aside. by a few yards. The putting is a combination of accounting for green slope, (a jagged line indicator to the left), and how hard to hit the ball. With practice 50 foot puts can be sunk, and four footers missed. Very realistic and spiced perfectly with the sound of the putter clicking against the ball and if dame fortune chooses, the noise of it falling into the cup, or your groan as it rims it and stops inches away (all distance is again recorded to the right of the green, along with the power indicator on the left). What a game! And finally a par 3 hole-in-one! Even the dogs woke up with that shout. A first time 18-hole score of 70, and I was beginning to feel jaded and wondering how anybody could play it for five hours.

The next round was played not at "Novice" but instead "Amature" level. There were no more hole-in-ones. And only did I manage the sound of a pitch shot kicking off the pin. Why? The trick of backswing and wrist snap is a bit more challenging at all levels beyond "Novice", and even so, your still operating without the wind factor which kicks in automatically at the Pro Level. So you stop the round (forward slash key) and back at the leader board, hit "R" and you're off to the Driving Range, to polish up that sloppy backswing and follow-thru. On the course your hooks and slices were becoming depressing, not to mention your score, which suddenly had done a Reagan-deficit double!

Back on the course, you try an experiment. You hike in names for two players, Novice and Amature, for comparison. Answer? About six strokes a nine for Amature to be able to stay even with Novice, that much harder is it. And so you realize it may be a few weeks before you take the Pro route.

The documentation is also a winner, a 14-page, slightly larger than a score card, sized booklet with read-once-to-understand explanations, including a 4-page layout of the courses.

Resolution of "the hang up" does not require changing your keyboard. After a most congenial talk with Access Software (2561 S. 1560 W., Woods Cross, Utah 84087) an update copy of LEADER BOARD was at my door in 48 hours. It is either keyboard or mouse driven, which solves the problem for those of us who had the early ATARI keyboards. Another bonus, LEADER BOARD on hard drive. But those of you with hard drives, don't load it in and change the .acc to .prg and then click it from the drive to the screen, without first sending your original disk to Access (remember copies can be made to allow you

to play in the interim). They will then include a patch which will allow it to be run off the drive. Without that? Once booted, the only way you can access other material beside LEADER BOARD is to reformat the entire drive and reload it! Again, not only is their product fine but also their instant support. They also promise "Tournament Disks", even harder courses for those of you that find, after "the 1st 100 hours", you're consistently shooting in the 60's.

So get out there, where the sky is always blue, and the sun ever-shining so you can see the shadow of your ball as it wings its way to the green, or the pond in front of it on the 13th hole. Total computer bliss, for this simple reviewer, is a good outline program, "warp codes" to skip levels on "Bounty Bob" on the 8-bit (any help out there), and a golf game worthy of causing you to fight for a handicap, before the bets go down on the first tee. With Leader Board, I'm 1/3 of the way there.

Thank you, Access Software. We can't wait for your "Big Ten", pro bowling simulation.

LEWIS123 \$29.95

Lewis123 is the first spreadsheet for chemistry students, chemistry professors, chemists in industry, organic chemist, and any person who might need to deal with covalent bonds. Lewis123 with its interactive bond sketching environment can greatly enhance a chemistry students ability to grasp the concept of covalent bonding. It can also dramatically reduce the time necessary for an organic chemist to draw the multitude of organic structures that he may have to depict.

Lewis123 is a radical departure from classic computer teaching aids in that it provides functionality as well as providing an excellent learning environment. We believe Lewis123 will set a new standard in scientific and educational software.

ENCRYPT \$19.95

Encrypt all of your sensitive files and programs. Choose from 2 billion numeric passwords. Were so confident of the encryption algorithm contained in the program that we will give \$500 and one copy of each of our software products to the first person (with a valid ENCRYPT system disk) to tell us what is in the document included with the program.

TO ORDER: Send check or money order to the address below. All prices include shipping and handling in the continental US. Elsewhere include \$3.00 for shipping.

STONE AGE SOFTWARE INC., PO Box 1216 Amherst NH, 03031

CHESSMASTER 2000
Advertising Fraud, and a New Invention
by Steven Johns

This article is to alert the honest software consumer about a new practice of dishonesty in the marketing of software which is meant to defraud you of your money by getting you to buy software which trumpets features which are non-existent on your machine. Also, I hope that this article will encourage an avalanche of letters and phone calls to the companies in question advising them that you consider this practice to be false advertising and will no longer buy their products until they discontinue it. In other words, I'm naming names. PLEASE DO REPRINT THIS ARTICLE EVERYWHERE!!

CHESSMASTER 2000 is a new chess program from a company called Software Country. Distributed by Electronic Arts, it comes in the usual Electronic Arts square flat package. There is a photo of a grand old man on the front, presumably Mr. Master himself. On the rear there are two photos of the program's 3-D graphic displays (impressive) and a long list of features. First, about the 3-D graphics. The two photos are labeled, one for the Amiga and ST computers, and one for the Atari and Apple and Commodore 8-bits. There are noticeable differences, but both displays looked good. When run, the program produced the 8-bit display shown on the package. Don't consider that a good omen though, because the truth stops there.

I bought Chessmaster 2000 for my Atari 130 XE specifically for two of the features listed on the back of the package: joystick control and the on-board real time chess clock. The package was shrink-wrapped and had a 130 XE sticker on the front of it. When I got the program home and ran it, there was no chess clock and no joystick control, nor any explanation of their absence. Nowhere. Not in the documentation, not in the menus, nowhere. Nothing anywhere inside the package would lead you to believe that the outside of the package promised these features. But of course, it did promise these features, in bold bulleted format. I was shocked and outraged. This program cost me over \$30, after all. I called Software Country. They referred me to some tiny print on the rear of the package that read "Due to hardware limitations, not all features are available on all machines." That was their entire explanation of this blatant fraud. Fortunately for me, the store where I bought the program was good enough to allow me credit towards another purchase. I won't detail the poor implementation of some of the other "features" which I suppose, by a stretch of imagination, one might be able to concede were present. I'm sure the reader now has enough information to understand and be angry about this abuse of the consumer.

What I'm insisting on is this: When a software package places a list of features and a sticker with your computer's name on it on the same package, you have a right to expect those features to run on your computer. The only exception would be if all features were

specifically segregated, in labeled and obvious view on the outside of the package into separate categories of computers. This would allow for the production of a single package by the software company, a point of economic production that no one should oppose. For a company to design a software program around a top of the line computer, and design advertising to match, and then provide a subset of that program without warning to the unsuspecting consumer is out-and-out fraud. In no other business does the law allow such practice. Unfortunately, software law lags behind other law at this point in time, so until such time as prosecution is available as a remedy, it is up to us to keep each other informed so that our dollars and time don't go to these criminals who call themselves entrepreneurs.

In line with my strong feelings towards these people, I suggest the following half-serious invention. (I did promise you one!) It's called the Softbrick. You start with a normal red clay brick. Engrave on it the title Softbrick and in large letters a list of features with the prominent feature "Bounces off windows." Then, give it a good hard heave at the office or car window of the fraudulent developer of your choice. Of course, somewhere in a corner put the fine print: "Due to hardware limitations, all features may not be available on all windows." I wonder if the recipient would be pleased with the results?!! At least they wouldn't be paying their hard-earned money up front to find out.

**In 1986 a start-up company
called**

TEAM Software

**will be marketing software
for the Atari line of
computers concentrating on
the ST**

interested developers call (703) 533-2132 or
(301) 834-6259

or write
P. O. Box 7332
Washington, D. C. 20044

for details

TEAM Software, a cut above

ATARI USERS REGIONAL ASSOCIATION

President..... John Barnes..... 301-652-0667
 Vice President... Bill Schadt..... 301-622-1547
 Treasurer..... Richard Stoll..... 301-946-8435
 Corr. Secretary.. Marshall Abram... 301-588-1005
 Membership Chrm.. William Pimble... 301-341-9572
 Disk Librarian... Rick Kellogg.... 301-277-7536
 Hardware Coord... Moe Sherman..... 301-593-1076
 CN Liaison..... VACANT

Meetings: 1st Thursday, 7:00 pm (Library Activities),
 7:30-9:00 pm (Program) in the Temple Israel Social Hall.
 Temple Israel is located in Silver Spring, at 420 E.
 University Blvd, between Colesville Rd (Route 29) and
 Piney Branch Rd (Route 320).

President's Report
 by John Barnes

1. Meetings - We will meet on the 4th of September at Temple Israel. There will be no October meeting because of conflicts with religious observances at Temple Israel and because scheduling an alternative meeting place for one month is impractical.

2. Officers' Meeting - On July 31 the AURA officers held a meeting at Richard Stoll's house. Present were: John Barnes, Bill Schadt, Richard Stoll, Bill Pimble, Rick Kellogg, Scott Klein, and Mo Sherman. The following issues were discussed:

2.a *Equipment donation* - The group reviewed the only proposal that was submitted in response to our notice in the July Current Notes soliciting ideas for donations of the proceeds from the May 31 Atarifest. Richard Stoll reported that the applicable amount of money is \$925. Cannon Road Elementary School in Montgomery County submitted a wish list amounting to more than \$1300 for Atari computer equipment, supplies, and software to aid in their program for gifted and talented students. This proposal was deemed responsive to our solicitation and Richard Stoll has requested price lists from vendors so that we can put together a package that meets most, if not all, of the school's needs.

AURA will invite a representative of the school to the September meeting so that the presentation can be formalized. Bill Schadt is acting as AURA liaison to assist the school with installation, training, and support.

We encourage all AURA members who know of software that is good for elementary school children to contact Bill Schadt so that the material can be added to a list of future purchases. AURA will also donate such material as is useful from our library.

2.b *ST support* - The recent tidal wave of ST purchases among the AURA leadership and the increasing interest in these products exhibited by our membership has prompted consideration of the way in which the group can best support these interests. The club will acquire ST hardware after reviewing bids.

Scott Klein will act as ST disk librarian and AURA will offer the Current Notes ST library at meetings. Arrangements for assisting retail stores in distribution of this material are being worked out. Initial inventory will include the most popular and useful offerings and we expect to fill back orders for other disks. AURA will develop an ST library of its own with an emphasis on quality, usefulness, and adequacy of documentation. This will be merged into the wider distribution as we gain experience.

2.c *Future directions* - The board does not wish to set up a separate ST SIG at this time. We feel that the resulting fragmentation will be unhealthy for AURA and

that all AURA members will be best served by a unified approach. We expect to offer both 8 and 16 bit material at all meetings. This will require some care to ensure that presentations are of general interest.

2.d *8-bit directions* - We recognize that the current intellectual and commercial foment is in the 16-bit area and that it will become increasingly difficult to maintain support for the 8-bit segment of our membership. We expect the rate of release of new hardware and software to diminish. Additional volunteers are required to maintain the 8-bit library, to monitor the software and hardware markets, and to provide assistance for those people who need it. The 8-bit library will be reviewed for release to Current Notes mail-order distribution and as a permanent legacy to the Atari community.

2.d *Fall Atarifest* - Initial planning for the fall Atarifest is under way. This event promises to be much bigger and better than last year's. AURA will participate through library sales and tutorials and workshops. We have volunteered to man classrooms stressing computer applications for personal productivity. We expect to need 12 to 15 volunteers for this activity. If you would like to contribute something else, get in touch with John Barnes so he can direct you to the right person.

2.e *Univ of Md Computer Fair* - AURA will participate in the second annual computer fair sponsored by the University of Maryland Personal Computing Association. The PCA has scheduled the fair for Saturday, October 25 at the Student Union on the Maryland Campus. We need volunteers for a full day of library sales and machine demos. We expect to have some really impressive items this year.

3. *AURA meeting Place* - The issue of a meeting place has come up again. Temple Israel would like us to pay higher rates. We have found that rescheduling meetings because of conflicts with the Temple's needs is a problem. We are prepared to pay, and we ask that any member who has an in with an American Legion Post, VFW hall, or similar facility contact John Barnes regarding new arrangements.

CAPITAL PRO MICRO-USERS

President..... Bob Kelly..... 301-839-6397
 VP-Finances..... Frank Jones..... 301-593-1056
 VP-Communication. Mike Abramowitz.. 301-983-2363
 VP-Prog.Affairs.. Joe Catterino.... 301-757-1329
 Disk Library..... Joe Barbano..... 301-464-0757
 Sysop/RBBS..... Frank Huband..... 703-276-8342

Meetings: 4th Tuesday, 6:30 pm, Meeting Room at the Public Library in Oxon Hill, Maryland. Library is located near the Woodrow Wilson Bridge just off the Washington beltway. From Virginia via the Woodrow Wilson Bridge, stay on the beltway to Maryland exit #4 West (St. Barnabas Road). St. Barnabas Road merges with Oxon Hill Rd. (right turn at end of exit ramp); proceed 1/4 mile and Library will be on your left.

FREDERICK ATARI COMPUTER ENTHUSIASTS

President..... Mike Kerwin..... 301-845-4477
 Vice President... Roger Eastep..... 301-972-7179
 Treasurer..... Buddy Smallwood.. 301-432-6863
 Librarian..... Chris Bigelow.... 301-662-4691
 Secretary..... John Maschmeier.. 301-271-2470
 SYSOP..... Sam Yu..... 301-662-5586
 Bulletin Board..... 301-569-8305

Meetings: 4th Tuesday, 7 - 9:30 pm, Walkersville H. S., MD Route 194, 1 mile north of MD Route 26 (Liberty Road).

Dues are \$20/year/family. Join at meeting or send check, payable to FACE, to Buddy Smallwood, P.O. Box 300, Keedysville, MD 21756.

Secretary's Report
by John Maschmeyer

At our August meeting we were treated to a demonstration of PRINTSHOP COMPANION by Mike Kerwin, and Buddy Smallwood demonstrated TIME BANDITS on the 520 ST. At our September meeting, on the 23rd, we will see a demonstration of synthesizers put on by Buddy and Chris, and a run-through of HARBALL, to get in the mood for the World Series. We are all looking forward to November 8th and the next ATARIFEST. Our group plans to demonstrate some of the Voiceboxes and talking capabilities of the Atari.

~~~~~  
NATIONAL CAPITAL ATARI USERS' GROUP

President..... Peter Kilcullen.. 202-296-5700  
Vice President... Mike Pollak..... 703-768-7669  
Treasurer..... Allen H. Lerman.. 703-460-0289  
XL/XE Librarian.. Mike Pollak..... 703-768-7669

Meetings: 3rd Tuesday, 5:30 - 8:30 pm, room 543, National Science Foundation offices, 1800 G St., NW, Washington, DC. Closest subway stop is Farragut West on the Blue and Orange lines. Building is identified by sign for Madison National Bank on the corner. Front entrance is on west side of 18th between F and G. New members may join at meeting or send \$15 check, payable to NCAUG, to Allen Lerman, 14905 Waterway Drive, Rockville, MD 20853.

~~~~~  
NORTHERN VIRGINIA ATARI USERS' GROUP

President..... Ed Seward..... (703) 960-6360
Vice President... Bob Zimmon..... (703) 476-5924
Treasurer..... Curt Sandler... (703) 734-9533
Secretary..... G. Weatherhead.. (703) 938-4829
Public Domain Ed. Dave Meyer..... (703) 455-7145
Program Chairman. VACANT..... (703) ???-????
Disk Librarian... M. Evan Brooks.. (703) 354-4482
NOVATARI Prog. Ex Jim Stevenson.. (703) 378-4093
Membership..... Earl Lilley.... (703) 281-9017
Acquisitions.... Palmer Pyle.... (703) 437-3883
SYSOP..... Ted Bell..... (703) 455-5312
Bulletin Board... ARMUDIC..... (703) 569-8305
BEGINNERS SIG.... Gary Purinton.. (703) 476-8391
TELECOM SIG..... Dick Knisely... (703) 476-0529

Meetings: 2nd Sunday, 5:30-9:00 pm, Washington Gas Light Building, 6801 Industrial Road, Springfield, VA. Take 495 to East on Braddock (620) to South on Backlick (617). Left on Industrial Road (by a light with a Texaco station on the corner). Washington Gas Light is the second building on the right (big parking lot, go right in front door). Dues are \$15/year. Join at the main meeting, any chapter or SIG meeting, or by sending \$15, payable to NOVATARI, to Earl Lilley, 821 Ninovan Road SE, Vienna, VA 22180.

Novatari Chapter Meetings

BURKE, 3rd SUN, 7:30-9:30, Oaks Community Center, Ray CwaTtna 250-3856.

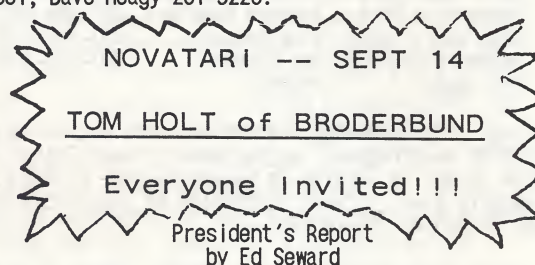
GREENBRIAR, 4th WED, 7:30-9:30, 4112 Majestic Lane, Greenbriar, Jim Stevenson 378-4093.

MT VERNON/HYBLA VALLEY, 1st THR, 7:30, Ron Peters 780-0963.

RESTON, last WED, 7-9, Reston Library, Bob Zimmon 476-5924.

STERLING, 1st THR, 7:30-9:30, Sterling Park Community Center, Palmer Pyle 437-3883.

VIENNA, 3rd WED, 7:30-9:30, Rm 32, Vienna Elementary School, Dave Heagy 281-9226.



I am going to start off this month by thanking Gardner Pomper of GAMES COMPUTERS PLAY (GCP) for his talk on GCP. The demo and discussion covered the various features of their system. The news out of the visit for ST owners is that GCP is working on the software necessary to access their system.

The speakers at meetings for the remainder of the year are scheduled as follows:

September 14th Tom Holt of BRODERBUND
October 12th Lois Logan (The New Aladdin)
November NO MEETING due to ATARIFEST
December 14th James Hurd

We also would like to reschedule Dr. Ed Bever of MICROPROSE.

At least one of the speakers has asked to talk early on in the program, so be sure to get to the meetings by 6:00. ALL WAACE members are, of course, invited and welcomed to every NOVATARI meeting.

The Atari \$499 ST special has had a tremendous impact on the makeup of NOVATARI. Two months ago NOVATARI had approximately 520 members with about 75 of those people being members of the ST SIG. As of the first week in August NOVATARI had 550 members with OVER 200 of them owning STs.

Now for the bad news. Ted Bell's house suffered a near miss by a lightning strike. The result was both BBS's were damaged. The WAACE BBS lost the computer itself and the modem. ARMUDIC (well it would be easier to say what was left) lost the ATR8000, two of the drives, and the modem. It was decided this was a good time to switch ARMUDIC to an ST system. For now ARMUDIC is running with 700k of download space but we hope to change that.

~~~~~  
VAST: Virginia ST

President..... Joe Kuffner.... (703) 759-2507  
Demo Volunteers.. Evan Wallace... (703) 620-9144  
Disk Librarian... ASilen Clarke.. (703) 250-4469  
Equipment Coord.. Ian Charters... (703) 845-7576  
Public Relations. Gary Scott..... (703) 590-1906  
WAACE ST BBS..... (703) 569-3227

Meetings: 2nd Sunday (6:15-7:30) & 4th Sunday (6:30-9:00), Washington Gas and Light Building.

President's Report  
by Joe Kuffner

Well September has arrived and the kids are back in school, vacations are over and Christmas is on the way. What better time to sit down and start enjoying your Atari ST. For those of you have been enjoying all summer long, keep up the enthusiasm.



The VaST group, through the course of the summer, has maintained a good turnout at both monthly meetings (about 60 at each). As a result we are going to continue having two meetings each month with different programs. We will endeavor to maintain high standards for these meetings. Many volunteers have come forth in order to assist with the meetings, and to them - Thanks for your support.

The major upcoming event for the fall is the Atarifest, November 8th, 1986. Again, NOVATARI will be sponsoring this event and need plenty of volunteers to make this a whopping success. This ST group has an opportunity to put itself "on the map", so to speak, by providing demonstrations of our ST in countless areas of computing. We will be discussing the details at upcoming meetings. Volunteers should contact either myself or any of the NOVATARI reps.

At the July 14 meeting, we had the vice-president of the Canadian NCAUG, Glenn Brown, as the guest speaker. He provided a very informative and entertaining demonstration of some new Batteries Included products as well as demos of some new game software to be released from Atari. He also provided a comparison of our two groups (NOVATARI vs NCAUG) which was very enlightening. It seems that in Canada, the XE/XL group is a SIG of the main group, as they have many more ST owners than XE/XL owners in their group. Also, while in our area, he met with Stores and Current Notes exchanging ideas, PD Libraries and newsletters.

At the forth Sunday meeting in July, we had a tutorial on how to create printer drivers for 1st Word, and discussion on other Word Processing packages, including the one I am using right now - ST Writer v. 1.7. This version allows double column printing, imbedded control codes, and a whole range of powerful features. This program is available in our PD Disk Library, and can be picked up at any meeting or by mail order from Current Notes.

Our August meetings have scheduled speakers from Games Computers Play (second Sunday) and Creative Solutions (authors of Multi-Forth for the ST and MacForth) on the fourth Sunday.

As of this writing, the plans for the September meetings include a Modem/Communication tutorial as well as a joint 8-bit/16-bit speaker from Broderbund. I'll keep you posted on the ST BBS on further developments.

Until next time, keep that ST buzzing.

### E.A.S.T.: EASTERN ATARI ST USERS

President..... John Kuehn..... (301) 460-0108

Meetings: 4th Thursday, 7:00-???, Twinbrook Library in Montgomery County at Viers Mill road at Twinbrook Parkway. The meeting room has it's own exit and thus meetings are not limited to library hours.

### SOUTHERN MARYLAND ATARI USERS' GROUP

President..... Sam Schriener..... 301-843-7916  
Secretary..... Dorothy Leonardi. 301-839-1363  
Treasurer..... Bob Barnett..... 301-934-2617  
Disk Librarian... Jim Sanner..... 301-884-5840

Meetings: 2nd Thursday, 7:30 pm, John Hanson Middle School In Waldorf, MD. Take MD Route #5, proceed about 1/2 mile East of the intersection of Route 301 and take the first left past the Kinney show store to the school. New members may join at the meeting or send \$15 check, payable to SMAUG, to Bob Barnett, P.O. Box 612, Waldorf, MD 20601.

### WOODBIDGE ATARI COMPUTER USERS' GROUP

President..... Bill Parker..... 703-680-3041  
First VP..... Cecil Alton..... 703-670-4842  
VP-Education.... Bob Gaffney..... 703-590-3433  
VP-Liaison..... Tim Mitchell..... 703-221-7722  
Secretary..... Bill Alger..... 703-455-9565  
Treasurer..... Curt Pieritz..... 703-494-3704  
Librarian..... Arnie Turk..... 703-670-2547  
Past President... Jack Holtzhauser.. 703-670-6475

Meetings: 3rd Tuesday, (EXCEPT for October 14, and November 11 -- all 2nd Tuesday), 7 - 10 pm, Community Room, Potomac Branch, Prince William County Library, Opitz Blvd., Woodbridge, VA. Entering Woodbridge from either North or South on Route #1, proceed to the intersection of Route #1 and Opitz Blvd (adjacent to Woodbridge Lincoln-Mercury). Turn west on Opitz and take first left turn into the library's parking lot. The Community Room is located to your left immediately upon entering the main building. Membership fee is \$10/year plus \$1 monthly dues. Join at meeting or send check, payable to WACUG, to Bill Alger, 7792 Newington Woods Drive, Springfield, VA 22153.



## The eSTe Clock by BigFoot Systems

### DATE and TIME for the ATARI 520/1040ST

Plugs into the cartridge port. Sets the ST system clock when power is turned on. Compatible with existing software: Your files will now be dated correctly. Case matches ST and can not be plugged in upside down. Has space for 64k of EPROM. \$48.50 plus \$3.50 for shipping.

Dealer inquiries welcome.

Also available: A ROM cartridge for up to 128k of ROM. \$15 for prototypes. Contact us for larger quantities.

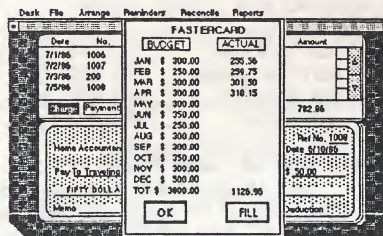
BigFoot Systems, 2708 E Lake St, Minneapolis, MN 55408. 612-722 9515



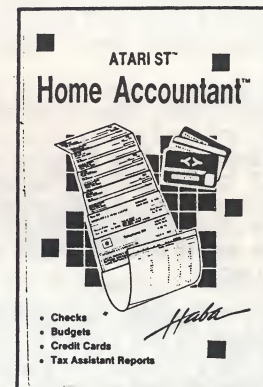
# Home Accountant™

## for the ATARI ST™

The easy-to-use accounting program that helps you manage your money!



- Automatically sets up and arranges checking or credit accounts.
- Set monthly budgets for each category.
- Prints personal or business checks.
- Unique Bill Reminder feature lets you review and pay your bills quickly.
- Display and print helpful financial data, including tax-deductible expenses, payment-due reminders, cash flow reports and monthly budget comparison reports.



*Haba*

Haba Systems, Inc. 6711 Valjean Avenue, Van Nuys, California 91406 • (818) 994-1899

**\$74<sup>95</sup>**

### CLASSIFIED ADS

FOR SALE: 64K ATR8000 (CP/M computer and ATARI peripheral controller); all cables, DT80 cartridge, software; \$250. Also available: 2 Tandon DS/DD drives; Zenith monochrome monitor. Bob Danson at 780-0758.

FOR SALE: ATARI System -- 48K 800, PERCOM AT88-PD w/cables, 410 recorder, Hayes 300 modem, over 100 disks with games, utilities, wps, applications. All in excellent shape. I'm definitely into ST and have no time

for good old 800. No reasonable cash offer refused. Also have Sony 12" Trinitron TV for monitor or TV w/remote for \$175. Call Pete at (703) 845-3460 or leave message.

FOR SALE: Inoperative 800XL, with power supply. Back issues of Antic (Nov. 1985, Jan.-Aug. 1986) and Analog (Dec. 1985, Feb.-Aug. 1986). Call Robert Vider at (202) 682-6147 days and (301) 464-2778 evenings and weekends.

### CURRENT NOTES: SUBSCRIPTION FORM

I would like to subscribe to *Current Notes* (\$15/year). Please start my subscription with the \_\_\_\_\_ Issue.

----- Please Print Clearly -----

NAME: \_\_\_\_\_ Phone: \_\_\_\_\_

STREET: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Mail to *Current Notes*, 122 N. Johnson Road, Sterling, VA 22170.

You may also use this form to join a specific club. I would like to become a member of (circle one): AURA, CPM, FACE, NCAUG, NOVATARI, SMAUG, WACUG. Mail this form, with appropriate dues, to the club of your choice.



**HARDWARE (800, 800XL, 130XE)**

|                         |        |
|-------------------------|--------|
| ATARI 130XE.....        | 129.99 |
| 65XE.....               | 89.99  |
| 1050 DISK DRIVE.....    | 127.99 |
| RAMRODXL WITH           |        |
| OMNIMON.....            | 79.99  |
| OMNIVIEW                |        |
| 80 COLUMN FOR           |        |
| 800XL AND 130XE         |        |
| INSTALLED.....          | 45.99  |
| US DOUBLER              |        |
| DOUBLE DENSITY          |        |
| FOR 1050                |        |
| INSTALLED.....          | 59.99  |
| HAPPY ENHANCEMENT       |        |
| FOR THE 1050            |        |
| INSTALLED.....          | 149.99 |
| 256K UPGRADED FOR 800XL |        |
| TURN YOUR 800XL INTO    |        |
| A 130XE WITH 256K       |        |
| MEMORY.....             | 64.99  |
| INSTALLED.....          | 89.99  |
| US DUPLICATOR.....      | 135.99 |
| INSTALLED.....          | 149.99 |
| PR CONNECTION.....      | 59.99  |
| 850 INTERFACE.....      | 119.99 |
| APEFACE.....            | 39.99  |
| UPRINT.....             | 49.99  |
| XEM 301 MODEM.....      | 39.99  |
| 600XL 64K UPGRADE       |        |
| R TIME CART.....        | 49.99  |
| SUPRA 64K PRINTER       |        |
| BUFFER.....             | 59.99  |

**PRINTERS**

|                     |        |
|---------------------|--------|
| PANASONIC           |        |
| KXP-1091.....       | 249.99 |
| KXP-1092.....       | 349.99 |
| KXP-3131.....       | 279.99 |
| KXP-1080.....       | 219.99 |
| KXP-1592 (NEW)..... | 469.99 |
| CITIZEN             |        |
| MP8-10.....         | 269.99 |
| MP8-15.....         | 399.99 |

**PRINTER UTILITIES**

|                              |       |
|------------------------------|-------|
| PRINTSHOP.....               | 33.99 |
| EXTRA GRAPHICS FOR PRINTSHOP |       |
| PRINTSHOP (LIB1,2,3).....    | 19.99 |
| MAGUDASOFT (LIB1,2).....     | 9.99  |
| XLENT                        |       |
| CARRY A FULL LINE            |       |
| TYPESETTER, RUBBERSTAMP      |       |
| PAGEDESIGNER, MEGAFONT II+   |       |

**BUSINESS APPLICATIONS**

|                               |       |
|-------------------------------|-------|
| SYNICALC (FOR THE 130XE)..... | 34.99 |
| SYNFILE (FOR THE 130XE).....  | 34.99 |
| B/GRAPH.....                  | 39.99 |

**LANGUAGES**

|                             |       |
|-----------------------------|-------|
| BASIC XL.....               | 45.99 |
| BASIC XL TOOLKIT.....       | 19.99 |
| BASIC XE.....               | 49.99 |
| MAC65.....                  | 49.99 |
| MAC65 TOOLKIT.....          | 19.99 |
| ACTION.....                 | 49.99 |
| ACTION TOOLKIT.....         | 19.99 |
| LOGO.....                   | 29.99 |
| KYAN PASCAL (IMPROVED)..... | 59.99 |

**WORDPROCESSOR**

|                             |       |
|-----------------------------|-------|
| ATARIWRITER.....            | 19.99 |
| ATARIWRITER PLUS.....       | 29.99 |
| LJK LETTER PERFECT.....     | 49.99 |
| PAPERCLIP FOR 130XE.....    | 39.99 |
| XLENT'S FIRST WORDPROCESSOR |       |
| (GRAPHICS&TEXT MIXED).....  | 25.99 |

**520ST HARDWARE****CALL FOR PRICING**

|                             |        |
|-----------------------------|--------|
| AUTHORIZE 520ST DEALER      |        |
| AUTHORIZE 1040ST DEALER     |        |
| AUTHORIZE ST SERVICE CENTER |        |
| 8F354.....                  | CALL   |
| 8F314.....                  | 219.99 |
| PRINTER CABLE.....          | 19.99  |
| SERIAL CABLE.....           | 19.99  |
| DISK DRIVE CABLE 6FT.....   | 19.99  |
| 520K UPGRADE BOARD.....     | 125.99 |
| INSTALLED.....              | 149.99 |
| INTERNAL CLOCK.....         | 49.99  |

**APPLICATION (ST)**

|                       |       |
|-----------------------|-------|
| VIP PROFESSIONAL..... | 89.99 |
| H&D BASE II.....      | 39.99 |

**ENTERTAINMENT**

|                     |       |
|---------------------|-------|
| 800                 |       |
| ULTIMA IV.....      | 45.99 |
| TOUCHDOWN.....      | 15.99 |
| SILENT SERVICE..... | 27.99 |
| NIGHT FIGHTER.....  | 19.99 |
| HARDBALL.....       | 19.99 |
| MINIATURE GOLF..... | 25.99 |
| 520 ST              |       |
| WINTER GAMES.....   | 29.99 |
| TIME BANDIT.....    | 29.99 |
| SILENT SERVICE..... | 39.99 |
| THE PAWN.....       | 35.99 |
| LITTLE PEOPLE.....  | 39.99 |

**EDUCATION**

|                            |        |
|----------------------------|--------|
| 800                        |        |
| SAT PREP (HARCROFT).....   | 59.99  |
| MASTERTYPE.....            | 19.99  |
| PLAETARIUM.....            | 19.99  |
| 520ST                      |        |
| WINNIE THE POOH.....       | 29.99  |
| DEGAS.....                 | 29.99  |
| EASYDRAW.....              | 99.99  |
| TYPESETTER.....            | 29.99  |
| GRAPHICS ARTIST (NEW)..... | 149.99 |

**520 ST LANGUAGES**

|                         |        |
|-------------------------|--------|
| OBS PASCAL.....         | 49.99  |
| ST DEVELOPMENT KIT..... | 275.99 |
| 4 X FORTH.....          | 64.99  |
| MACRO ASSEMBLER.....    | 59.99  |
| MODULA II.....          | 59.99  |
| MARK WILLIAMS C.....    | 129.99 |
| MEGAMAX C.....          | 189.99 |

**520ST WORDPROCESSORS**

|                           |       |
|---------------------------|-------|
| FINAL WORD.....           | 85.99 |
| REGENT WORD WITH          |       |
| REGENT SPELL (GREAT)..... | 39.99 |
| COLORWRITER.....          | 59.99 |
| HABAWRITER.....           | 59.99 |
| EXPRESS.....              | 9.99  |

**520ST TELECOMMUNICATION**

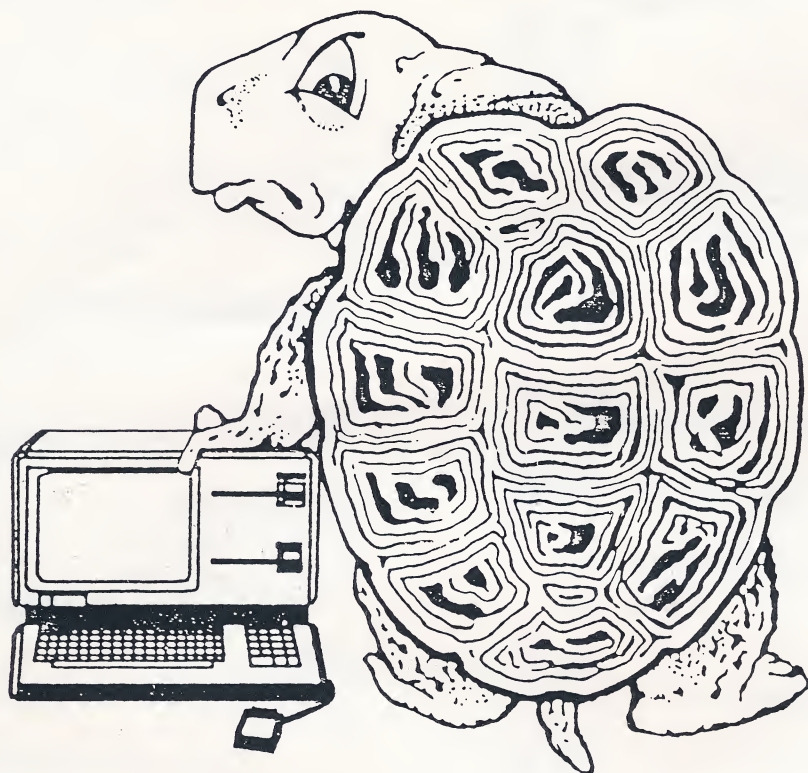
|                   |       |
|-------------------|-------|
| PC INTERCOMM..... | 75.99 |
| ANSIGRAF.....     | 75.99 |
| ST TERM.....      | 39.99 |

**OVER 600 SOFTWARE TITLES****IN STOCK****\*\*\*\*SPECIAL OF THE MONTH\*\*\*\*****SONY OR MAXELL 3.5****SS/DD BOX \$ 14.99****BONUS SS/DD 5.25 BX \$ 7.99****NO SURCHARGE FOR CREDIT CARD****L&Y ELECTRONICS****Store Hours****M-F 10 to 8****Sat. 10 to 7****703-494-3444, Metro 643-1729****13670 JEFFERSON DAVIS HWY.****WOODBIDGE, VA 22191****SALE ENDS SEPT. 31, 1986****NO RAINCHECKS—IN STOCK ONLY**



# Computerfest '86

A gathering of user groups and vendors in the  
Washington D.C. area



Apple, Atari, Commodore, IBM  
Seminars, Swapfest, Q & A Sessions

Admission: \$4.00 with this ad, \$6.00/general

Place: Adele H. Stamp Union, University of Maryland

Date: October 25, 1986

Time: 9:30 AM to 5:00 PM

For more information: Personal Computing Association, Adele H. Stamp Union,  
College Park MD 20742. Phone: 350-1437